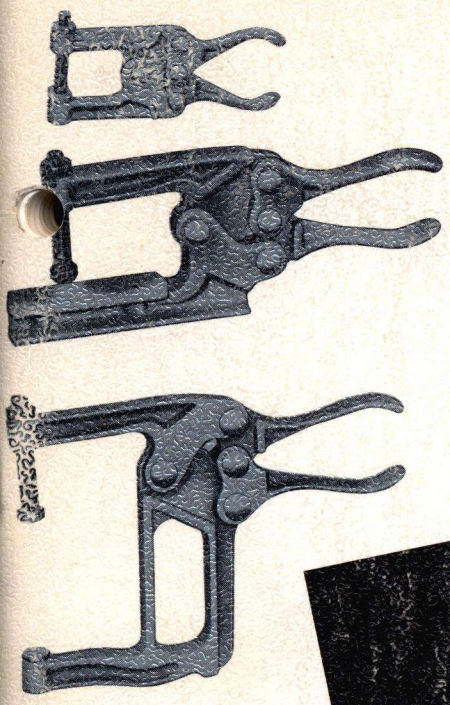
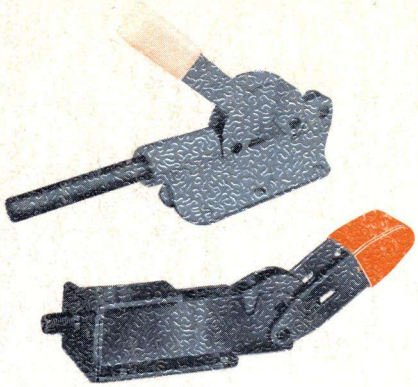






CATALOG

KNU-VISE PRODUCTS

TOGGLE ACTION CLAMPING DEVICES

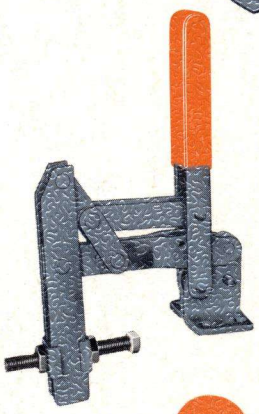
HAND OPERATED **CLAMPS**

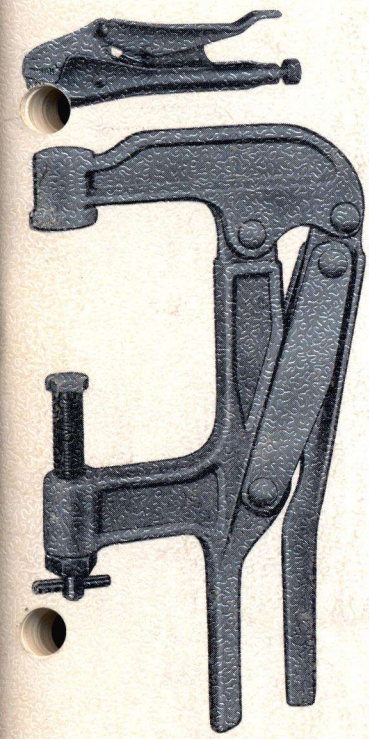
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PNEUMATIC & HYDRAULIC **CYLINDERS**

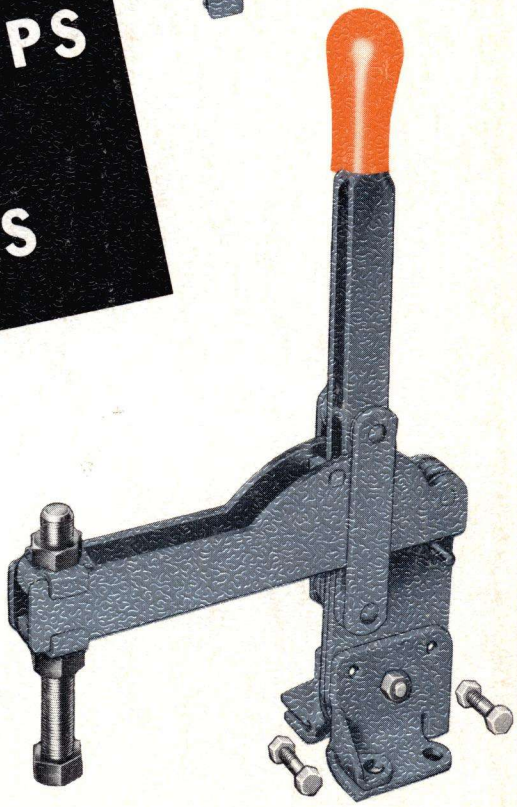












LAPEER MANUFACTURING CO. • 3056 DAVISON ROAD • LAPEER, MICHIGAN

KNU-VISE PRODUCTS

TOGGLE-ACTION CLAMPS PLIERS, AND WRENCHES

PHONE



for

PROMPT SERVICE

DETROIT SALES OFFICE
AND ENGINEERING DIVISION
313-873-4800

LAPEER-MICHIGAN
MAIN OFFICE AND PLANT
313-664-2964

LAPEER MANUFACTURING CO.

MAIN OFFICE AND PLANT:	3056 Davison Road, Lapeer, Michigan 48446
GENERAL SALES OFFICE:	420 Fisher Bldg. Detroit, Michigan 48202
WESTERN DIVISION:	Art Lewis Prod. Equip. Co., Inc. 4436 Long Beach Ave. Los Angeles, Calif. 90058 Tel.: 213-233-5115
CANADA:	Higginson Equip. Sales Ltd. 1131 Pettit Road Burlington, Ontario L7R 3Z4 Tel.: 416-634-1888 Telex: 021-171
CANADA:	Producto Diemakers Supplies Ltd. Downsview, Ontario
FOREIGN	
EUROPE:	Gytaco Suhr, Switzerland
SOUTH AMERICA:	Ingenieria y Mantenimiento Ind'l S.A. Mexico

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KNU-VISE PRODUCTS
LAPEER, MICHIGAN

LIST OF CLAMPS

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LAPEER MFG. CO.
KNU-VISE PRODUCTS
LAPEER, MICHIGAN

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(or Oil-Operated)

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Also see Side Mount Clamps

**Full Length spindle*
Standard on these models.

†Available with copper spindles upon request.

★Available with Lever Unlocking Feature

LAPEER MFG. CO.
KNU-VISE PRODUCTS
LAPEER, MICHIGAN

LIST OF CLAMPS

LAPEER MFG. CO.
KNU-VISE PRODUCTS
LAPEER, MICHIGAN

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★Available with Lever Unlocking Feature

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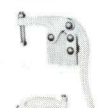


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†Available with copper spindles upon request.

GENERAL INFORMATION

CLAMPING FORCE

The range of toggle action clamping needs is conveniently covered by the 100, 200, 400, 600, 800, 1200, 1600, 1800 and 2000 fixed mounted clamp series. These identifying clamp-series numerals represent the recommended clamping forces in POUNDS at the end of the overhang of the toggle bar or jaw.

The recommended clamping forces represent the forces for actual clamping; not holding force at failure of clamp, or the maximum force. So, the recommended clamping forces can be increased by 15% to 20% for maximum loading. In the case of heavy duty clamps the increase may be 115% to 120%, i. e., the V-400 clamp has a maximum clamping force of 400 + 80 = 480 pounds. The heavy duty model, V-400 (HD) has a maximum clamping force of 400 + 480 = 880 pounds.

HEAT TREATMENT

All parts, according to their mechanical functions, stresses, strains and wear are scientifically heat treated. This process provides the needed mechanical properties for proper working and longer life.

HEAVY-DUTY MODELS

Heavy duty clamps are made from C.R.S. bar stock, and are provided with hardened steel bushings (knurled on the outside to augment press fit) and hardened and ground bearing bolts with self-locking nuts. These nuts permit the maintaining of minimum side play, as well as allowing the replacement of any part.

AIR or OIL OPERATED CLAMPS

Many of the fixed mounted clamp series are AIR or OIL OPERATED for use in single or multiple remote-control installations, thus eliminating operator's fatigue and facilitating higher production.

When operated by AIR, the restrictor fittings furnished control the speed of the opening and closing of the clamp, and provide a cushioning effect that ELIMINATES HAMMERLIKE ACTION.

Should it be desirable, *when operated by air*, to slightly increase the speed of opening and closing of the clamp, the restrictor fitting holes need to be enlarged by a few thousandths only.

When operated by OIL, the hole in each restrictor fitting must be enlarged to the same diameter as the hole in the cylinder end cap, or the fittings must be replaced by adapters with such holes, to obtain the same speed of opening and closing, as when operated by air.

REGULAR SHOP LINE AIR PRESSURE OF 80—85 p.s.i. is required, or the EQUIVALENT OIL PRESSURE.

All models with seals for temperatures up to 500°F available at slight extra cost.

PLASTIC HANDLE GRIP

All of our clamps are supplied with a dipped plastic handle for easy grip. These handles are orange in color, but may be ordered in any color.

WELDED-ON CLAMPS

This new Lapeer weld-on clamp is available in hand and air and oil operated models . . .

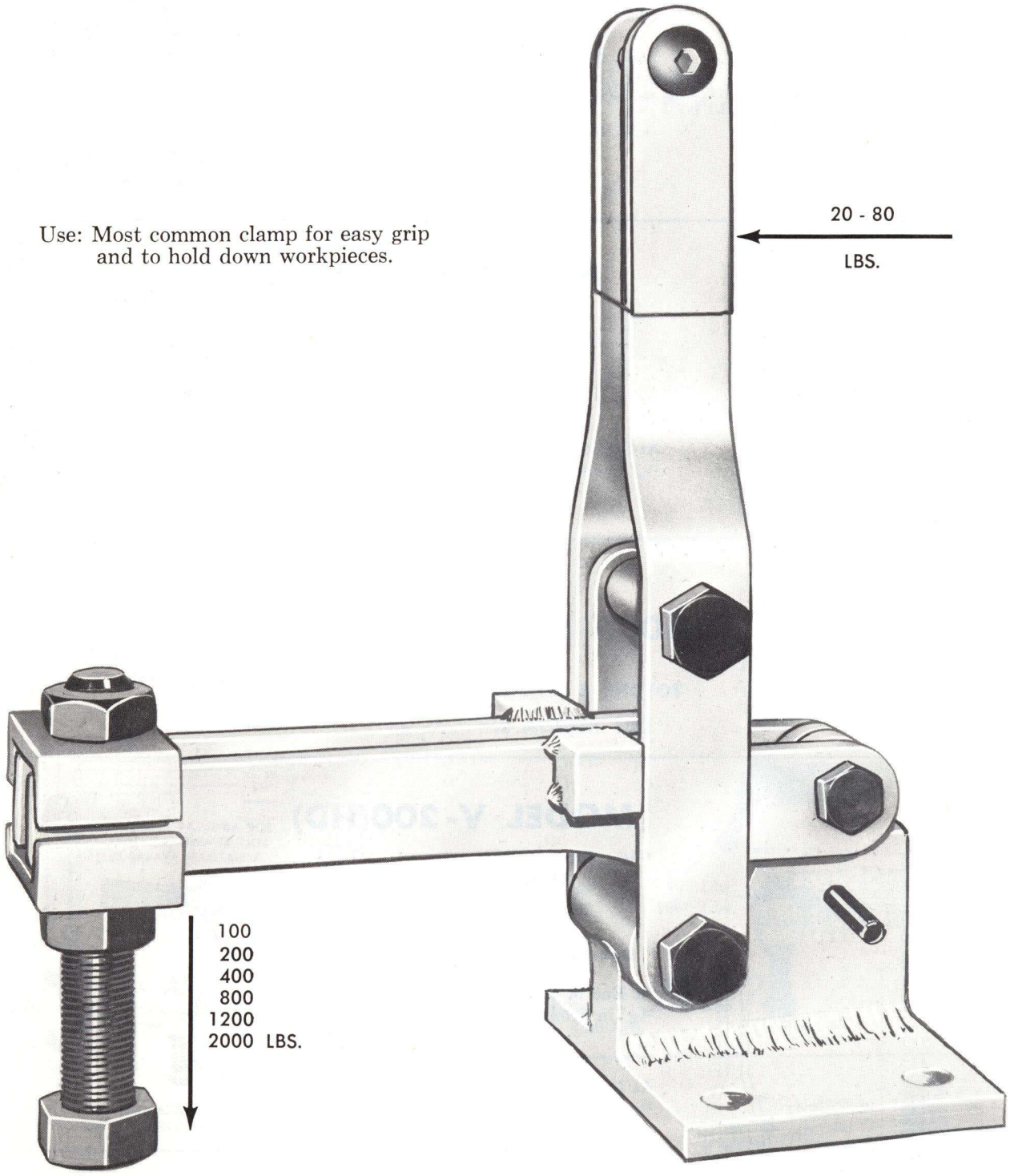
Just locate this clamp exactly where you want it — and then weld it into place. No drilling, no tapping, no messing around. It won't work loose under any amount of use or abuse . . . is ideal for rugged applications such as ship building, steel fabricating, welding — to name but a few.

Is even tough enough to be operated by foot power. It can also be specified with copper spindles to help eliminate welding splatters.

VERTICAL HANDLE

CLAMPING FORCE 100- 200 - 400 - 800 - 1200 - 2000 lbs.

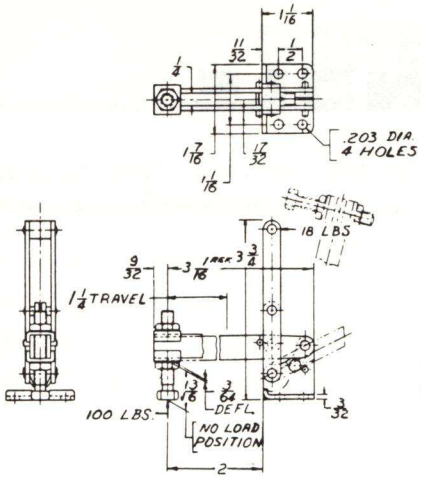
Use: Most common clamp for easy grip and to hold down workpieces.



FULL, HALF and QUARTER SIZE TEMPLATES are available

KNU-VISE PRODUCTS

LAPEER, MICHIGAN



MODEL V-100

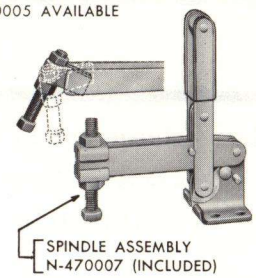
TEMPLATE & PHOTO

¼ ACTUAL SIZE

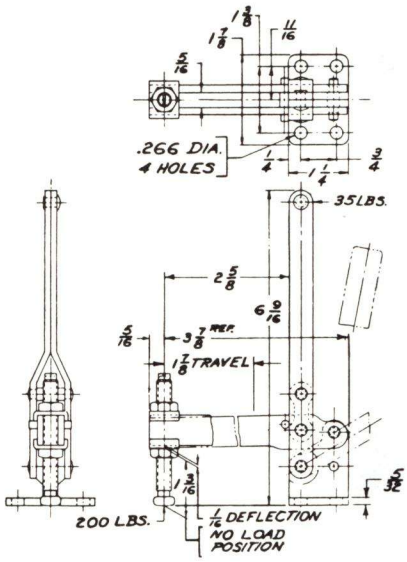
RECOMMENDED LOAD

At End of Toggle Bar 100 Lbs.
¾" in Front of Base 230 Lbs.
Weight, 0.24 Lb.

FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY R-470005 AVAILABLE



Also
MODEL V-100(SS)
From Stainless Steel



MODEL V-200

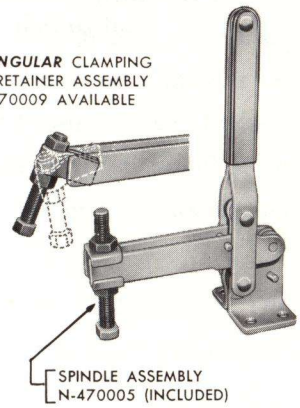
TEMPLATE & PHOTO

¼ ACTUAL SIZE

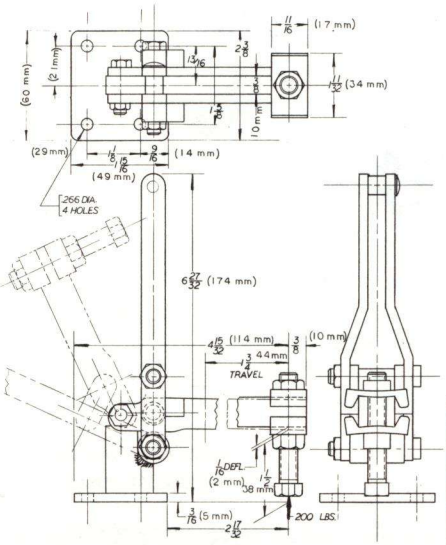
RECOMMENDED LOAD

At End of Toggle Bar 200 Lbs.
15/16" in Front of Base 480 Lbs.
Weight, 0.72 Lb.

FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE



Also
MODEL V-200(SS)
From Stainless Steel



MODEL V-200(HD)

TEMPLATE & PHOTOS

¼ ACTUAL SIZE

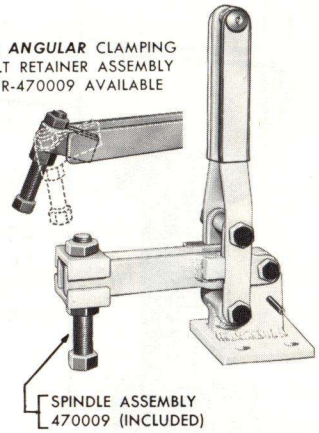
RECOMMENDED LOAD

At End of Toggle Bar 200 Lbs.
29/32" in Front of Base 480 Lbs.

MAXIMUM LOAD

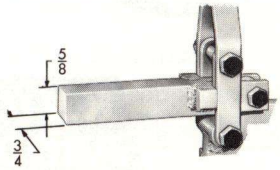
At End of Toggle Bar 400 Lbs.
29/32" in Front of Base 960 Lbs.
Weight, 1.68 Lbs.

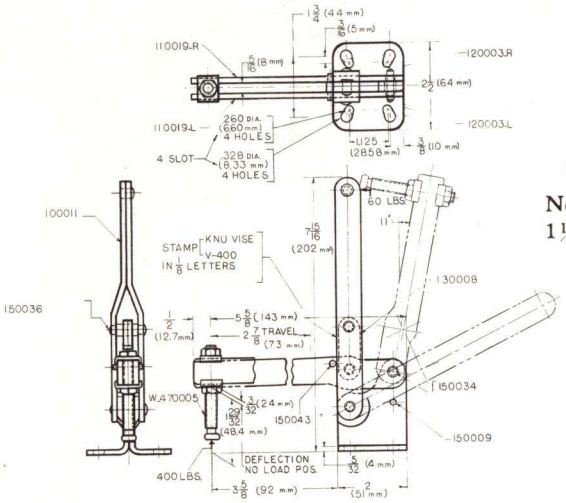
FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY WR-470009 AVAILABLE



MODEL VS-200(HD)

WITH SOLID TOGGLE BAR
Weight, 1.70 Lbs.





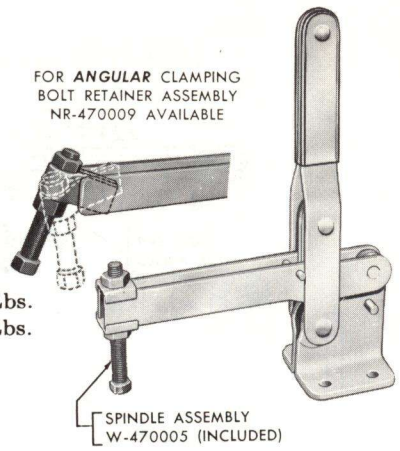
MODEL V-400

TEMPLATE & PHOTO

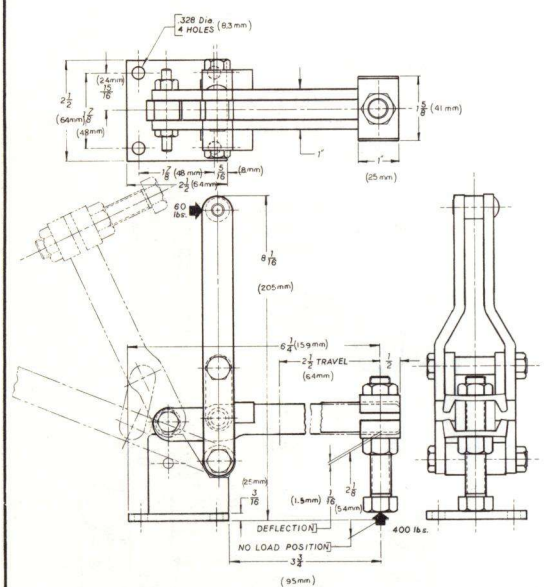
¼ ACTUAL SIZE

RECOMMENDED LOAD

Near End of Toggle Bar 400 Lbs.
1⅛" in Front of Base 1050 Lbs.
Weight, 1.50 Lbs.



MODEL V-400(HD)



TEMPLATE & PHOTOS

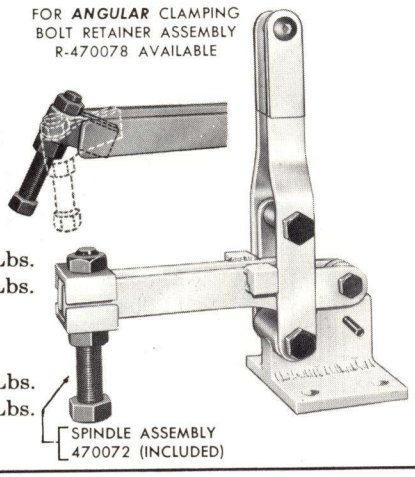
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 400 Lbs.
1⅛" in Front of Base 1050 Lbs.

MAXIMUM LOAD

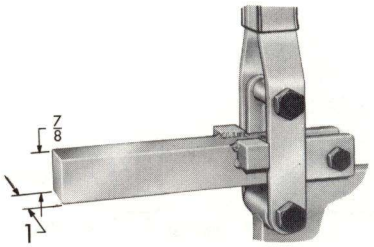
At End of Toggle Bar 800 Lbs.
1⅛" in Front of Base 2100 Lbs.
Weight, 3.60 Lbs.



MODEL VS-400(HD)

WITH SOLID TOGGLE BAR

Weight, 3.90 Lbs.



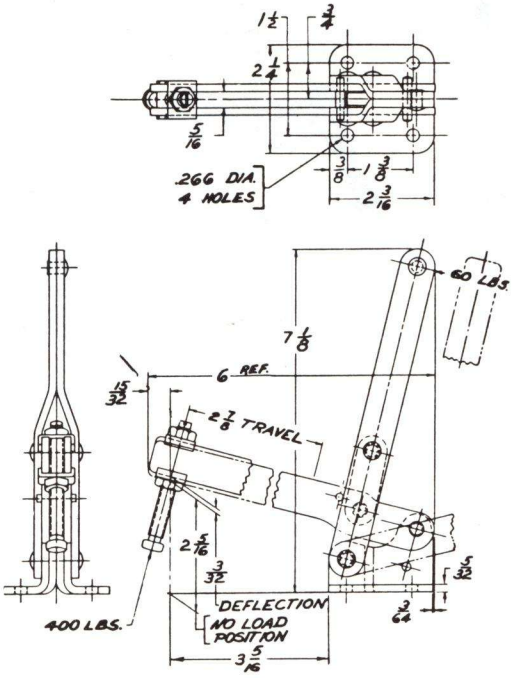
MODEL VA-400

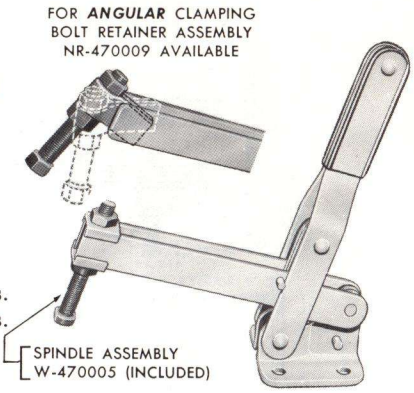
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

Near End of Toggle Bar....400 Lbs.
1⅛" in Front of Base.....1050 Lbs.
Weight, 1.38 Lbs.





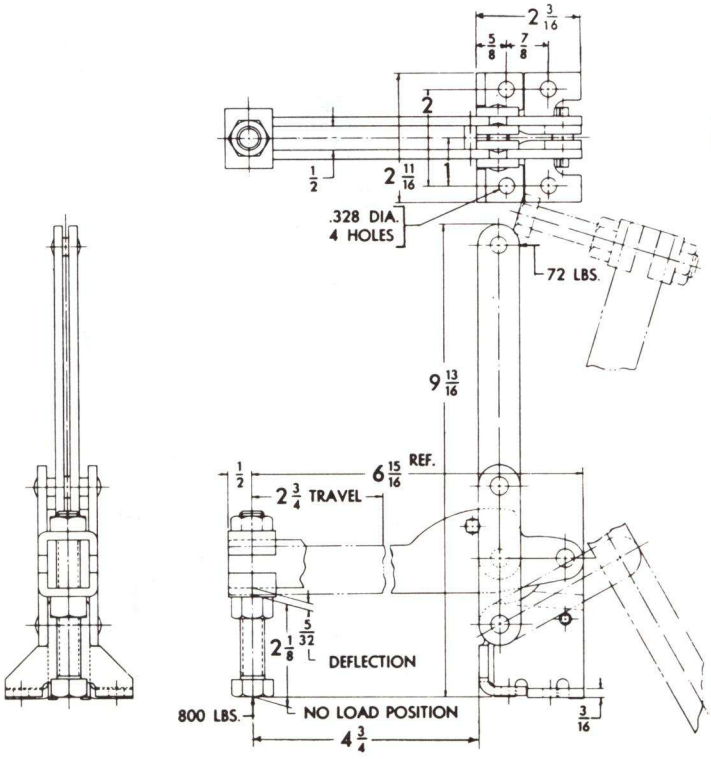
MODEL V-800

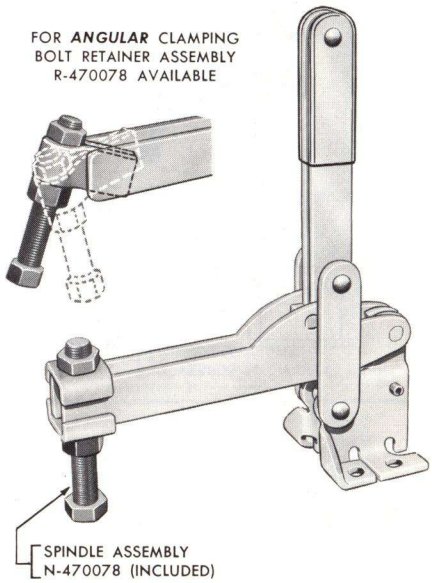
TEMPLATE & PHOTO

¼ ACTUAL SIZE

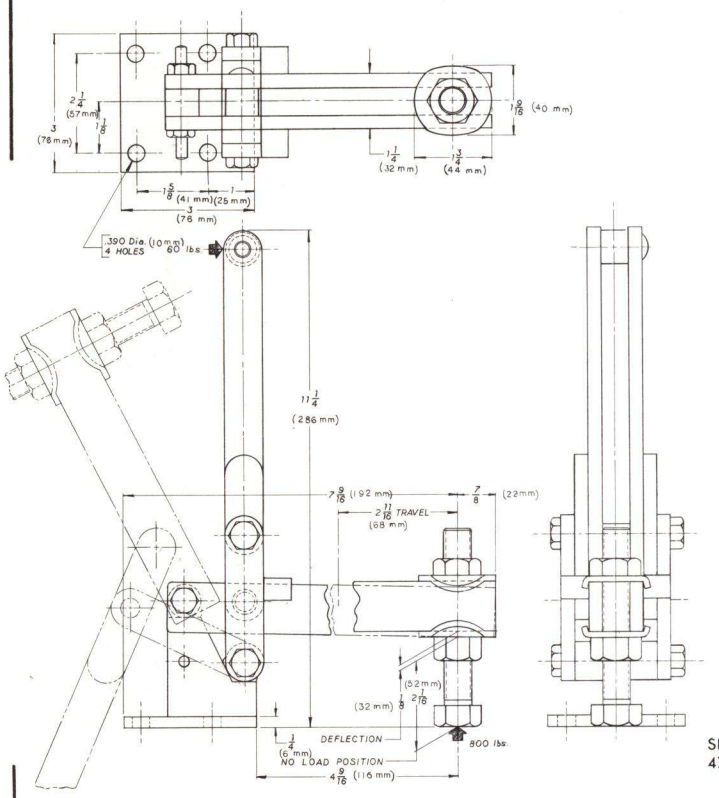
RECOMMENDED LOAD

At End of Toggle Bar....800 Lbs.
2" in Front of Base.....1700 Lbs.
Weight, 3.00 Lbs.





MODEL V-800(HD)



TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

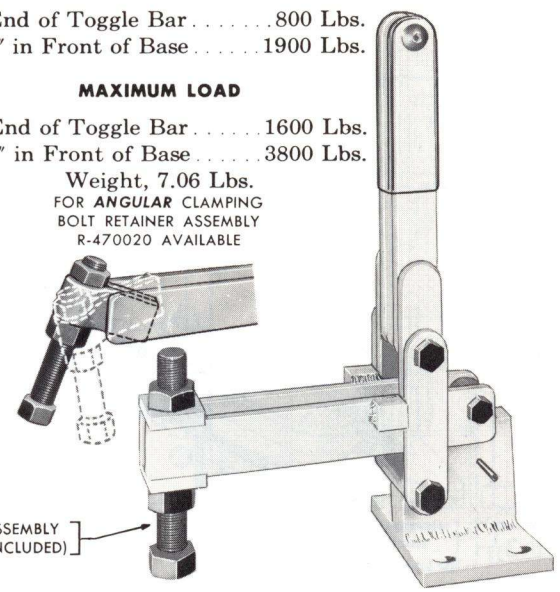
At End of Toggle Bar 800 Lbs.
1 11/16" in Front of Base 1900 Lbs.

MAXIMUM LOAD

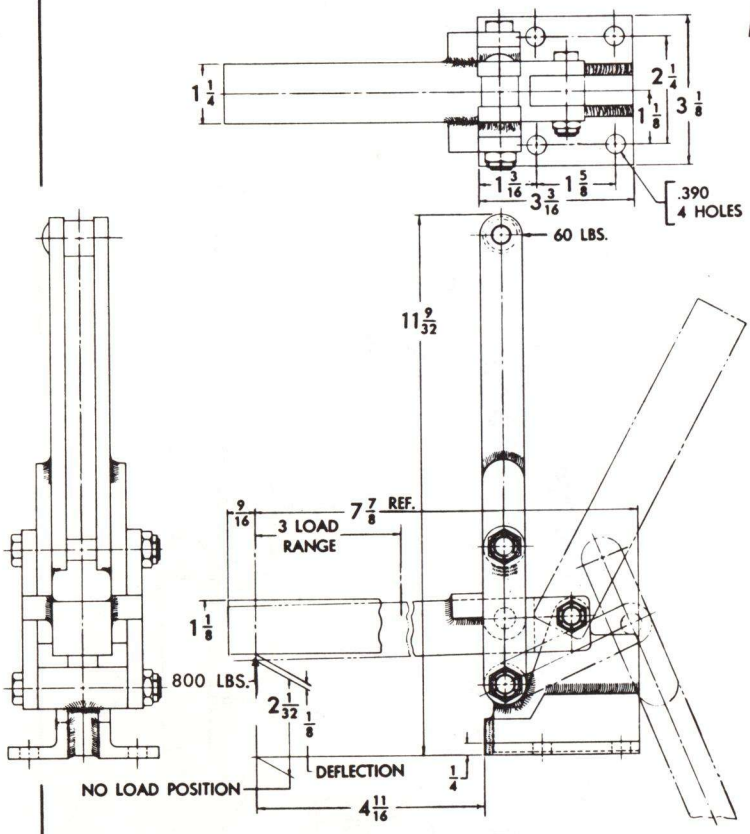
At End of Toggle Bar 1600 Lbs.
1 11/16" in Front of Base 3800 Lbs.

Weight, 7.06 Lbs.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470020 AVAILABLE



MODEL VS-800(HD)



TEMPLATE & PHOTO

¼ ACTUAL SIZE

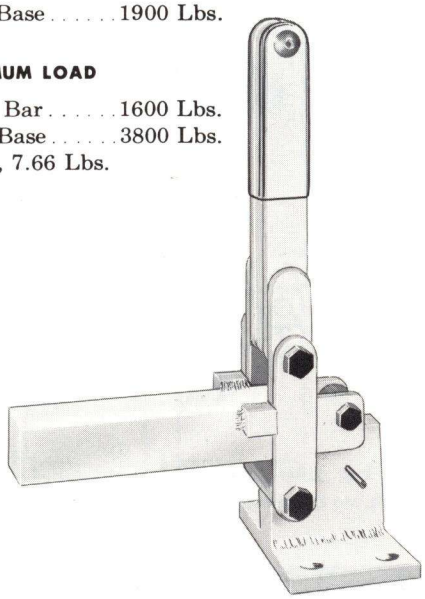
RECOMMENDED LOAD

At End of Toggle Bar 800 Lbs.
1 11/16" in Front of Base 1900 Lbs.

MAXIMUM LOAD

At End of Toggle Bar 1600 Lbs.
1 11/16" in Front of Base 3800 Lbs.

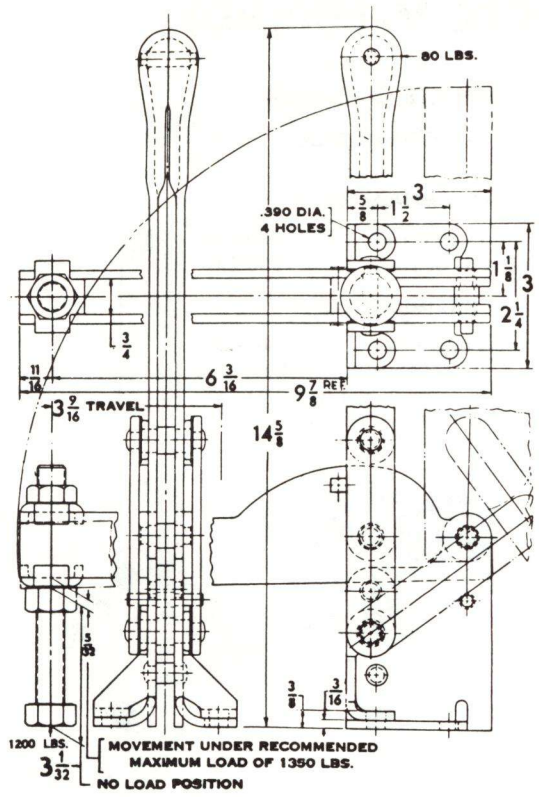
Weight, 7.66 Lbs.



KNU-VISE PRODUCTS

LAPEER, MICHIGAN

MODEL V-1200

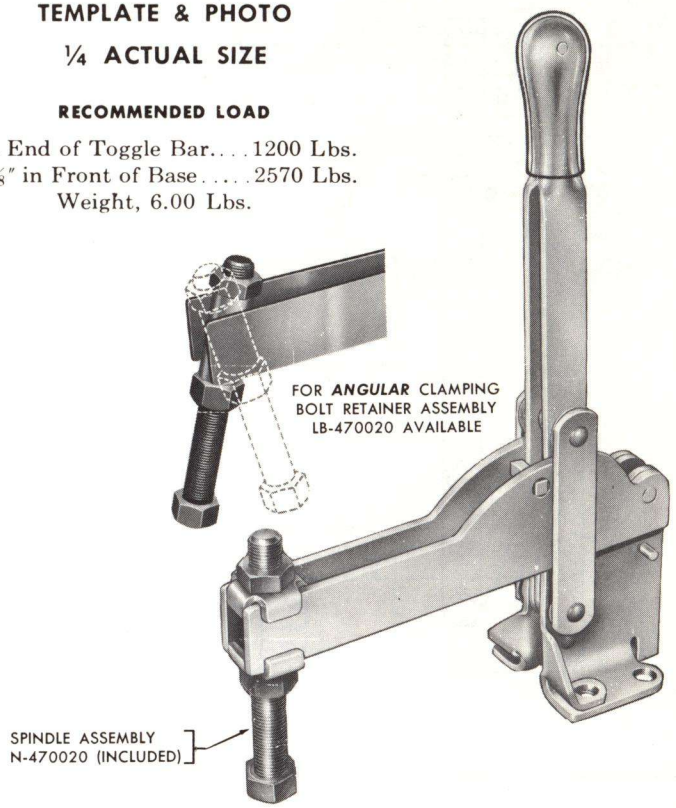


TEMPLATE & PHOTO

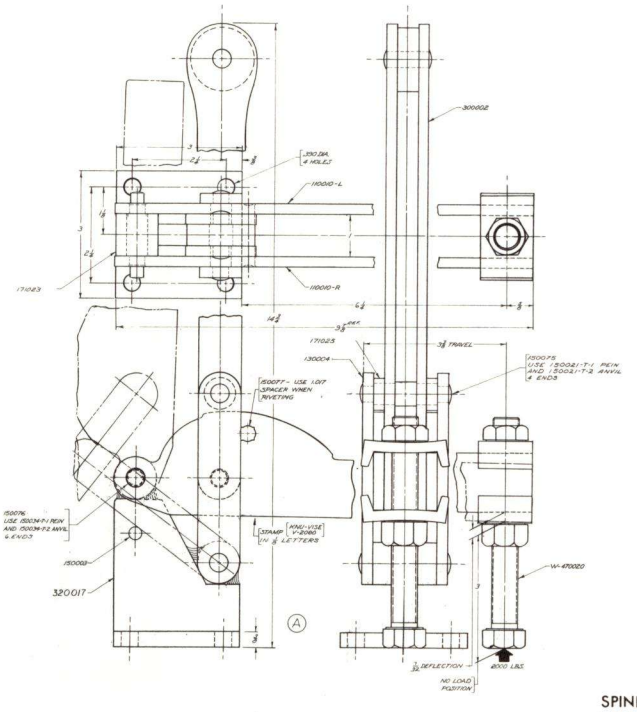
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar. . . . 1200 Lbs.
2⅝" in Front of Base 2570 Lbs.
Weight, 6.00 Lbs.



MODEL V-2000

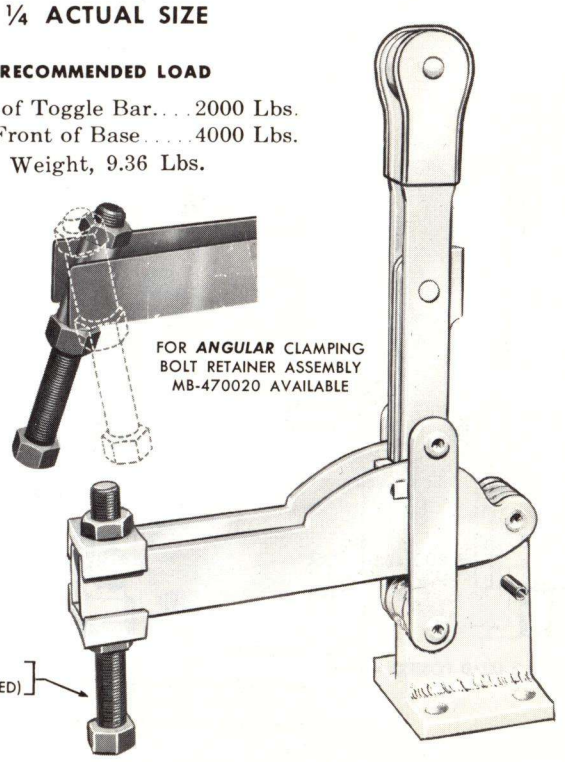


TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

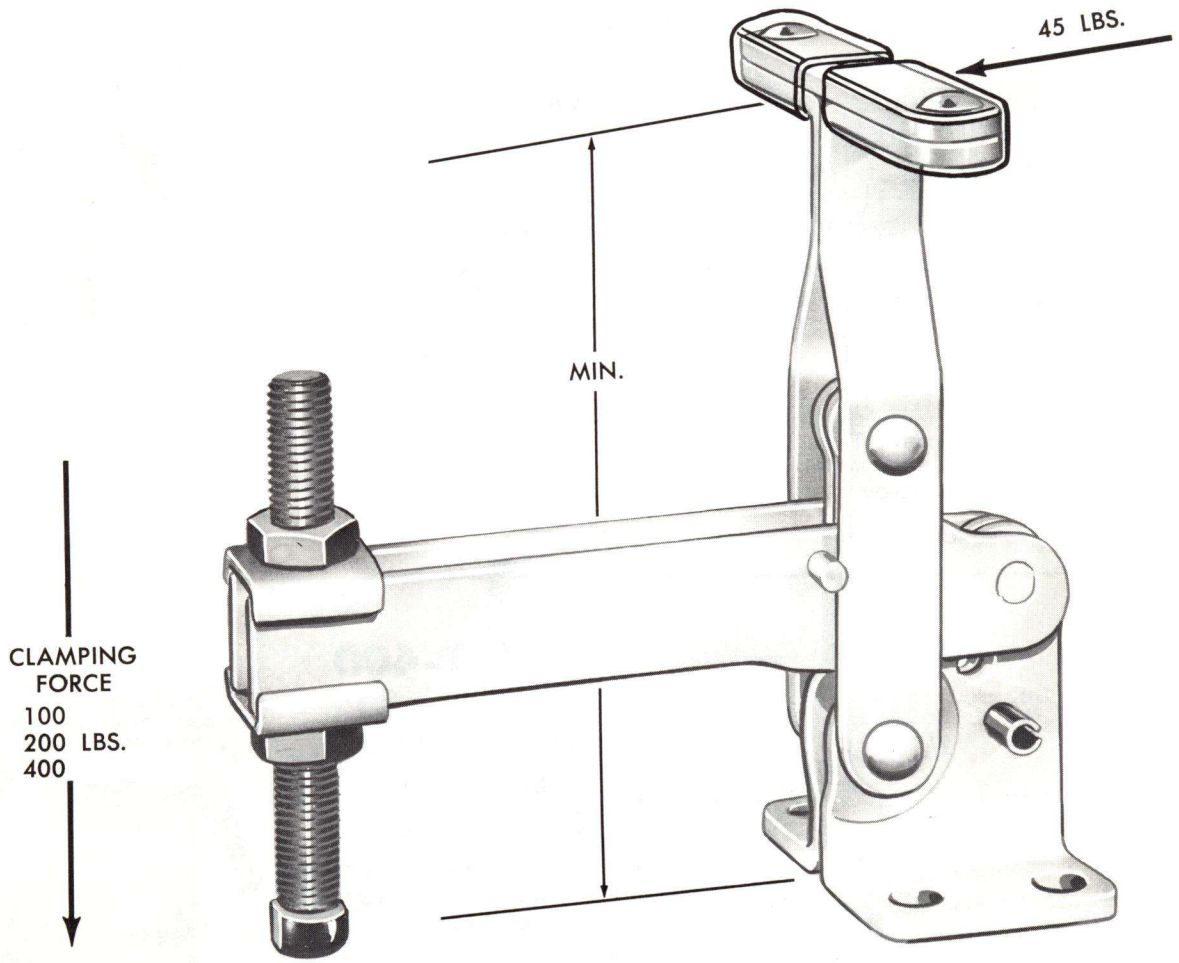
At End of Toggle Bar. . . . 2000 Lbs.
2⅞" in Front of Base 4000 Lbs.
Weight, 9.36 Lbs.



T-HANDLE

CLAMPING FORCE 100- 200- 400 lbs.

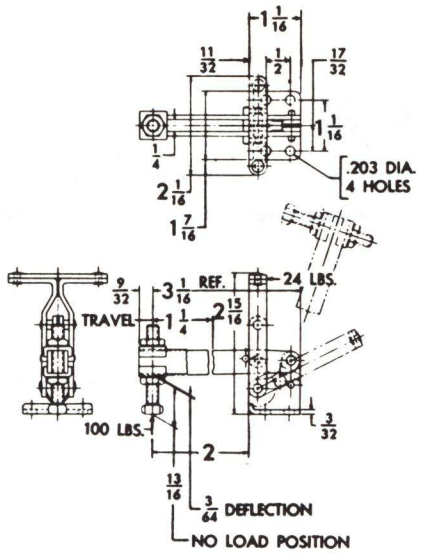
Use: For low overall height to give a free overhead movement of operating tool in any mechanical process.



FULL, HALF, and QUARTER SIZE TEMPLATES are available

KNU-VISE PRODUCTS

LAPEER, MICHIGAN



MODEL T-100

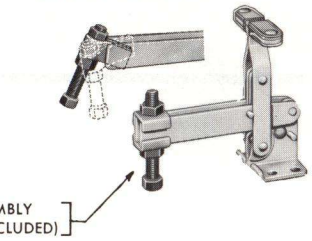
TEMPLATE & PHOTO

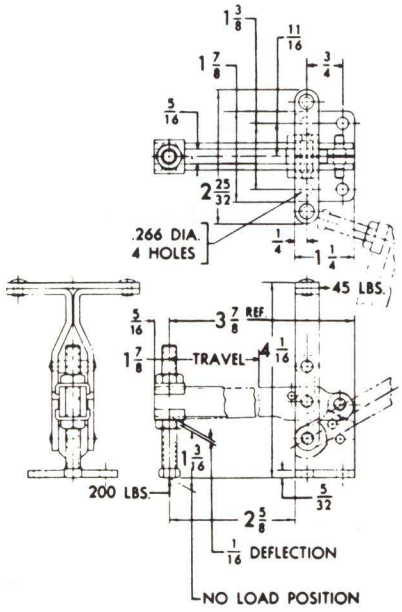
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 100 Lbs.
¾" in Front of Base 230 Lbs.
Weight, 0.32 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE





MODEL T-200

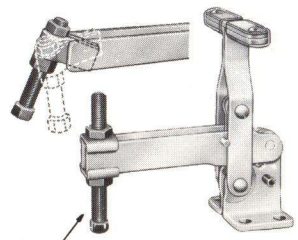
TEMPLATE & PHOTO

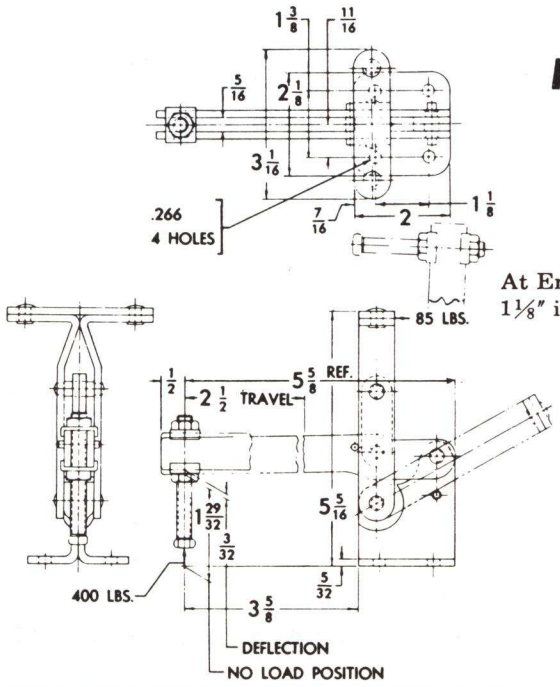
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 200 Lbs.
15/16" in Front of Base 480 Lbs.
Weight, 0.72 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE





MODEL T-400

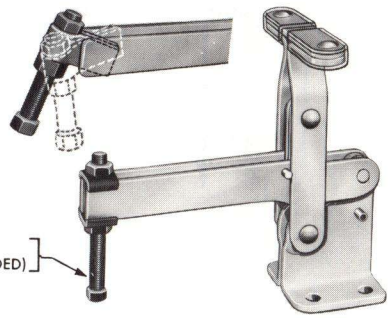
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

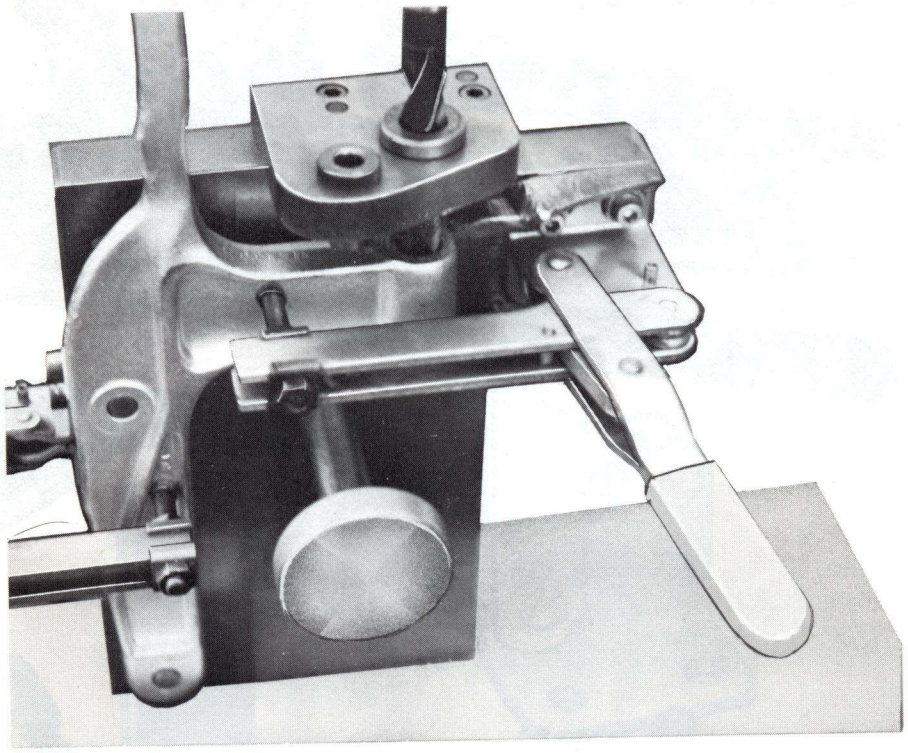
At End of Toggle Bar 400 Lbs.
1⅛" in Front of Base 1050 Lbs.
Weight, 1.44 Lbs.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

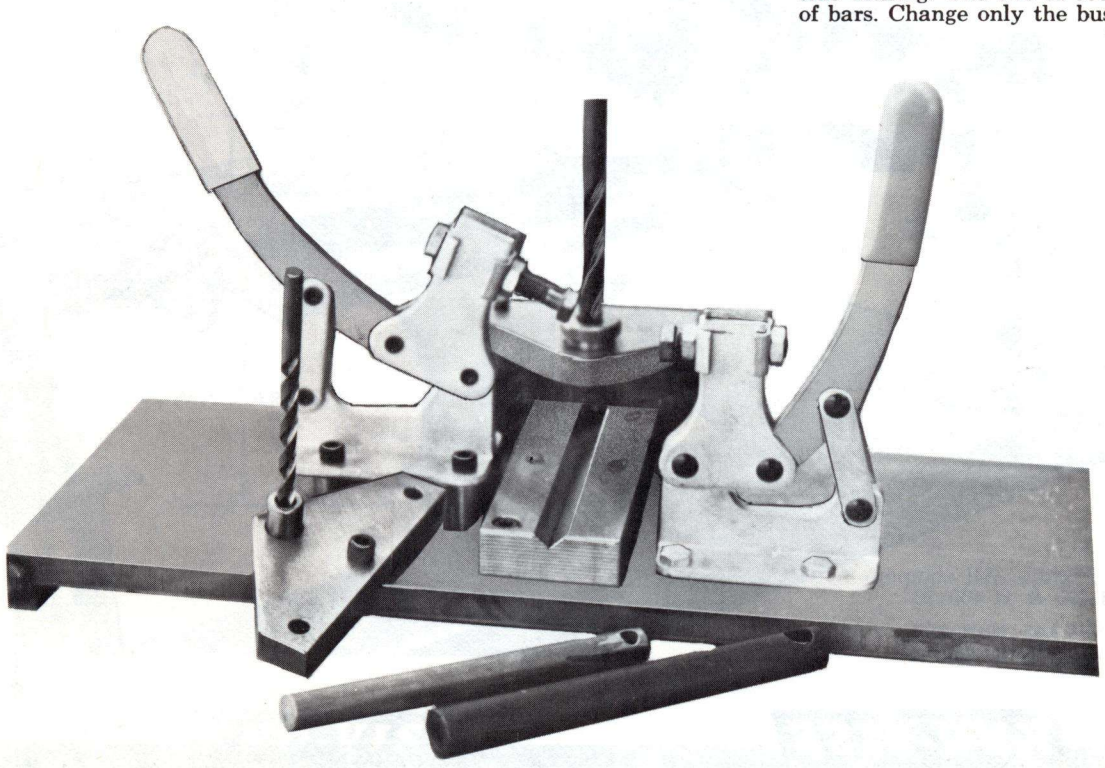


Sample Applications

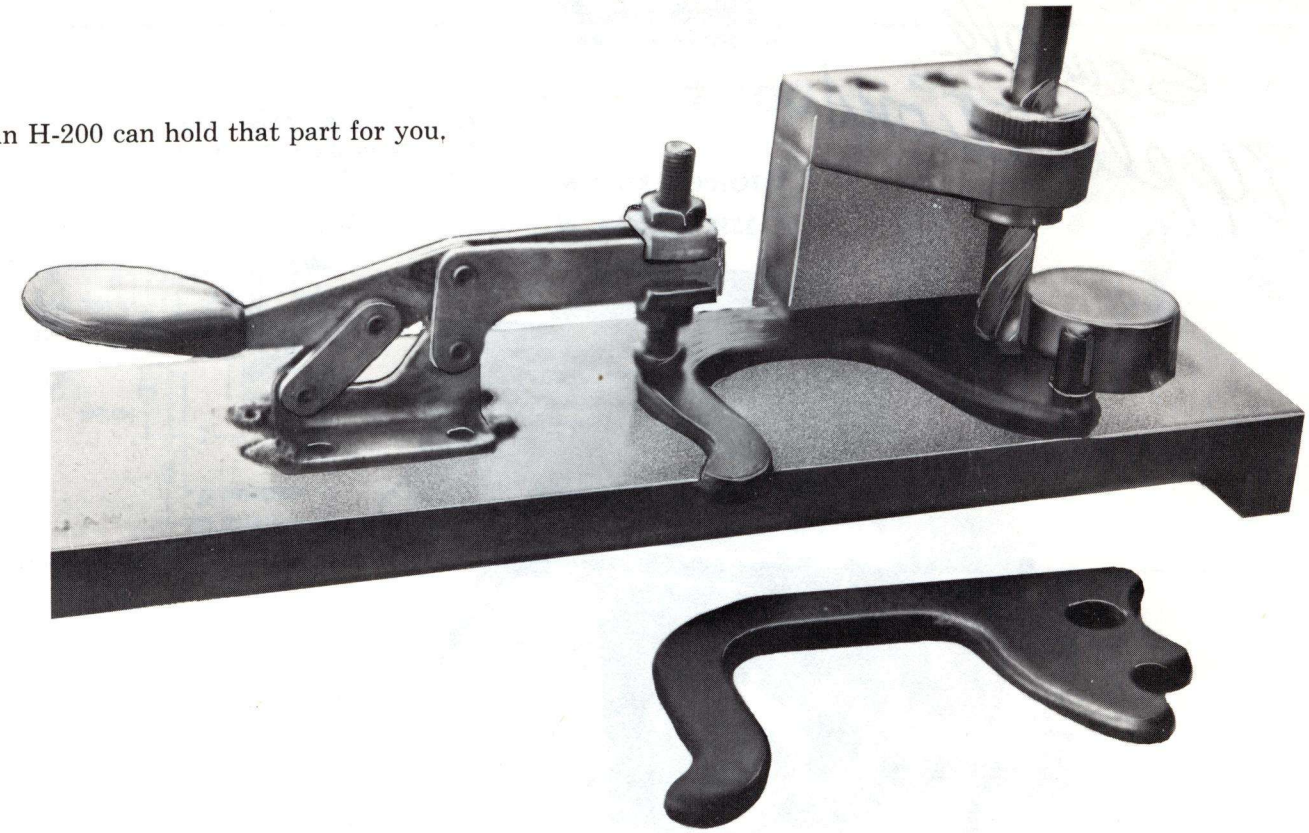
Vertical Handle Clamp V-400 holding a forged work piece in a drilling jig.

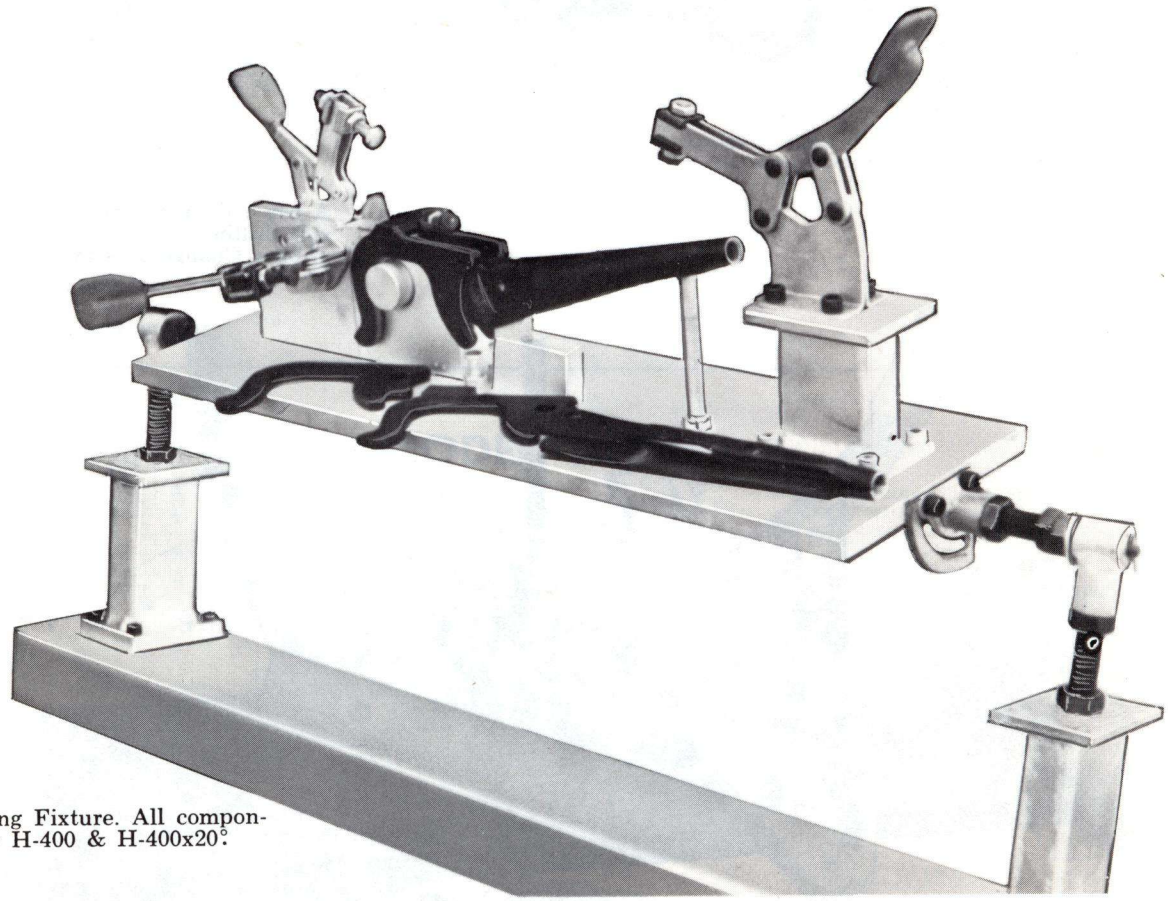


A bar drilling fixture with a V-Block for side drilling. The two H-600's for 2 sizes of bars. Change only the bushing plate.



An H-200 can hold that part for you.



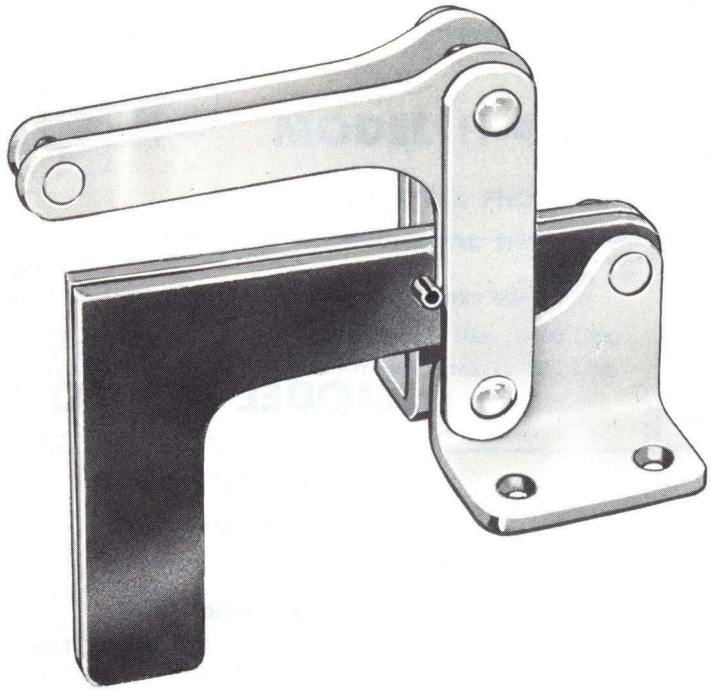


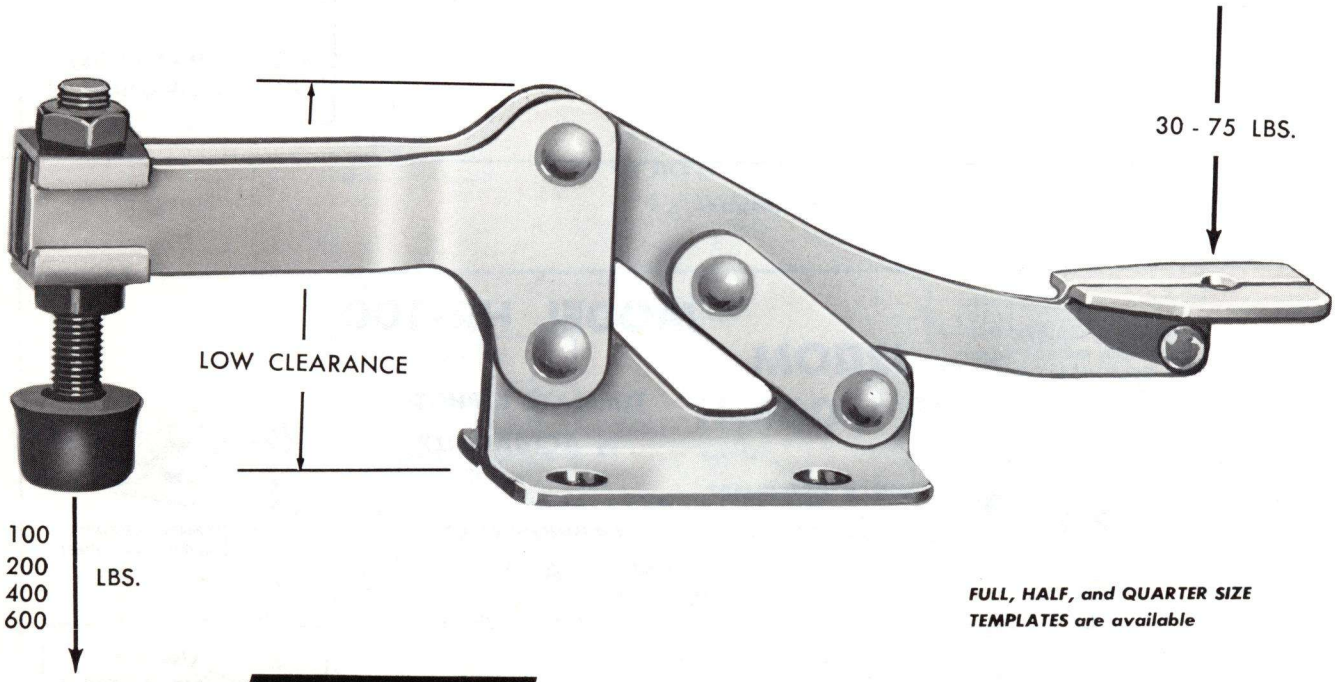
Assembly Welding Fixture. All components are held by H-400 & H-400x20°.

HORIZONTAL HANDLE

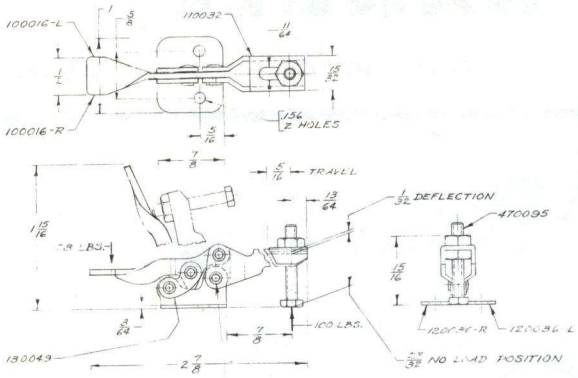
CLAMPING FORCE 100 - 200 - 400 - 600 lbs.

Use: Like the T-Handle series, gives a low overhead profile.



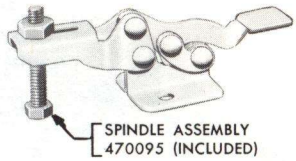


FULL, HALF, and QUARTER SIZE TEMPLATES are available



MODEL H-100

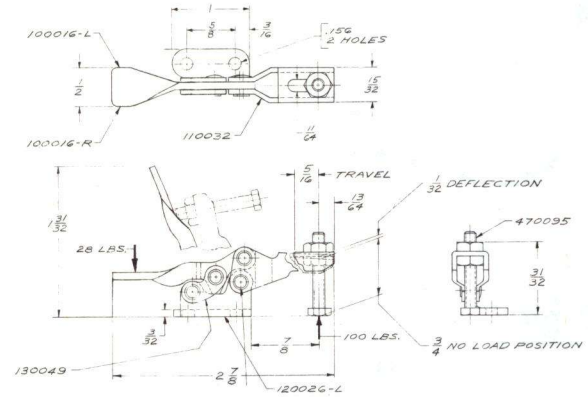
TEMPLATE & PHOTO
½ ACTUAL SIZE



RECOMMENDED LOAD

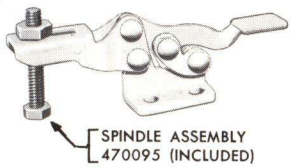
At End of Toggle Bar.....100 Lbs.
9/16" in Front of Base.....150 Lbs.
Weight, .068 Lb.

Also
MODEL H-100(SS)
From Stainless Steel



MODEL HL-100

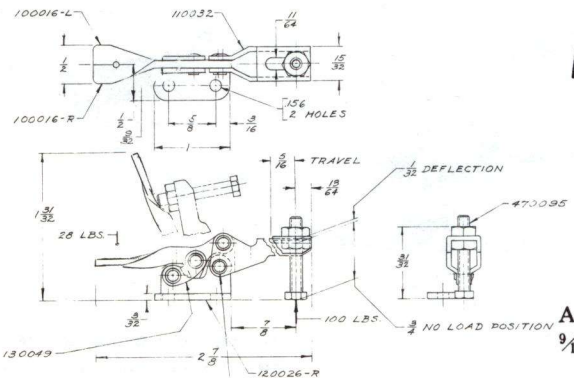
TEMPLATE & PHOTO
½ ACTUAL SIZE



RECOMMENDED LOAD

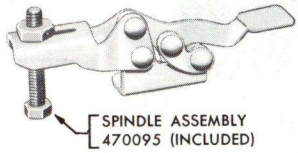
At End of Toggle Bar.....100 Lbs.
9/16" in Front of Base.....150 Lbs.
Weight, .065 Lb.

Also
MODEL HL-100(SS)
From Stainless Steel



MODEL HR-100

TEMPLATE & PHOTO
½ ACTUAL SIZE



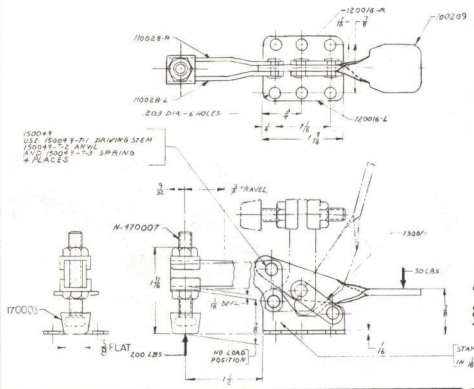
RECOMMENDED LOAD

At End of Toggle Bar.....100 Lbs.
9/16" in Front of Base.....150 Lbs.
Weight, .065 Lb.

Also
MODEL HR-100(SS)
From Stainless Steel

KNU-VISE PRODUCTS

LAPEER, MICHIGAN



MODEL H-200

TEMPLATE & PHOTO

¼ ACTUAL SIZE

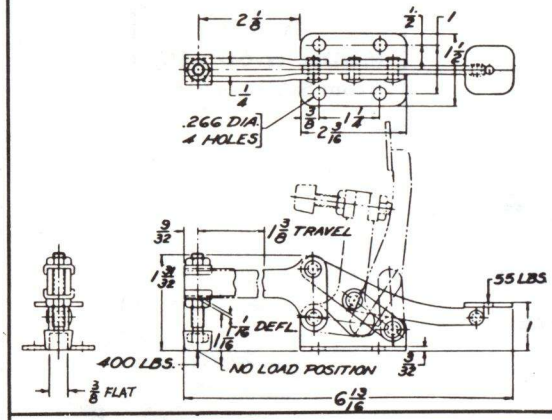
RECOMMENDED LOAD

At End of Toggle Bar.....200 Lbs.
¾" in Front of Base.....360 Lbs.
Weight, 0.24 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE



Also
MODEL H-200(SS)
From Stainless Steel



MODEL H-400

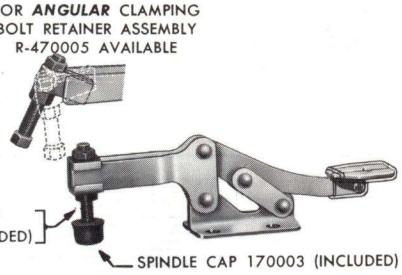
TEMPLATE & PHOTO

¼ ACTUAL SIZE

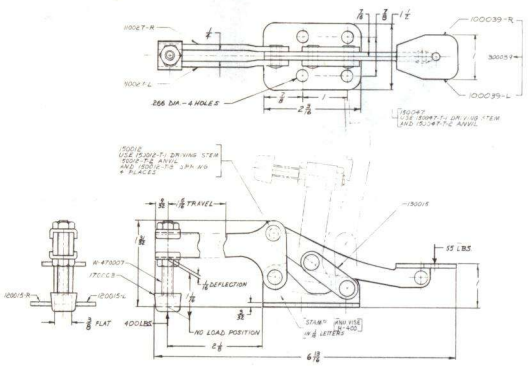
RECOMMENDED LOAD

At End of Toggle Bar...400 Lbs.
13/16" in Front of Base....880 Lbs.
Weight, 0.51 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE



Also
MODEL H-400(SS)
From Stainless Steel

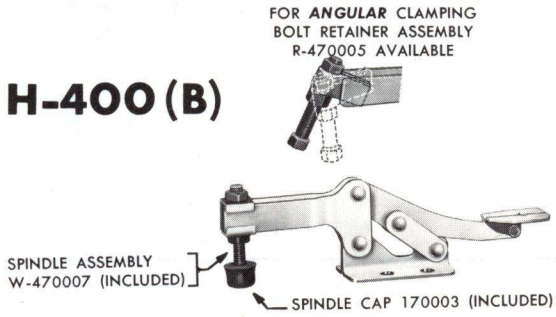


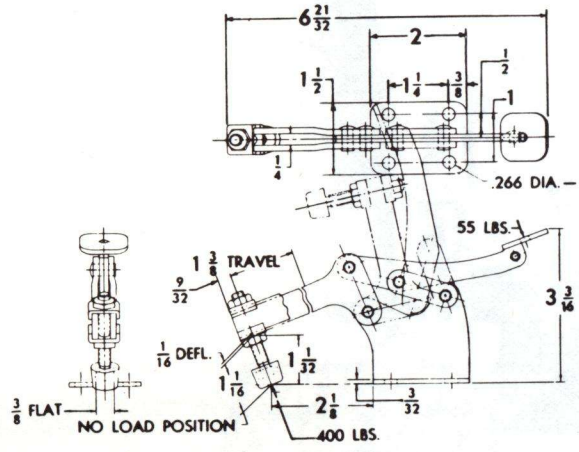
MODEL H-400 (B)

RECOMMENDED LOAD

At End of Toggle Bar...400 Lbs.
13/16" in Front of Base....880 Lbs.
Weight, 0.51 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE





MODEL H-400 x 20°

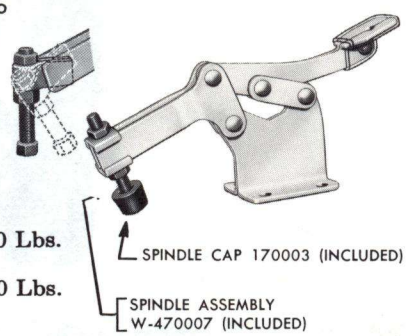
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

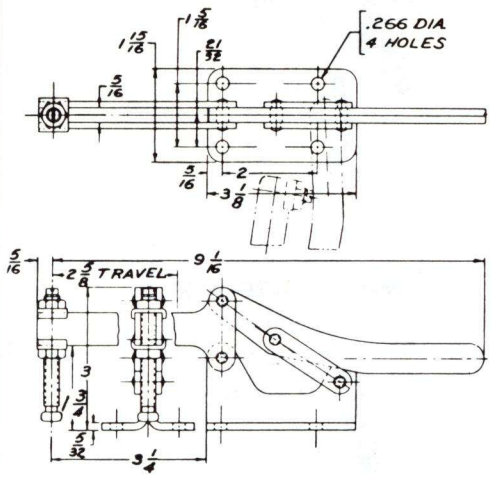
At End of Toggle Bar.....400 Lbs.
1 3/32" in Front of Centerline
of Toggle Bar Rivets....880 Lbs.
Weight, 0.62 Lb.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE



KNU-VISE PRODUCTS

LAPEER, MICHIGAN



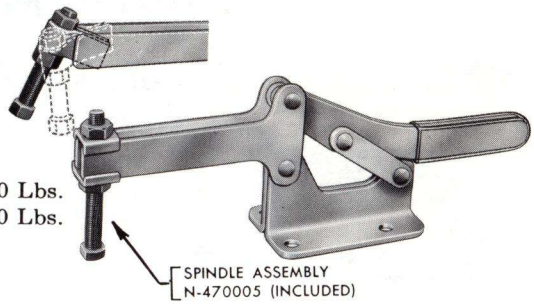
MODEL H-600

TEMPLATE & PHOTO
¼ ACTUAL SIZE

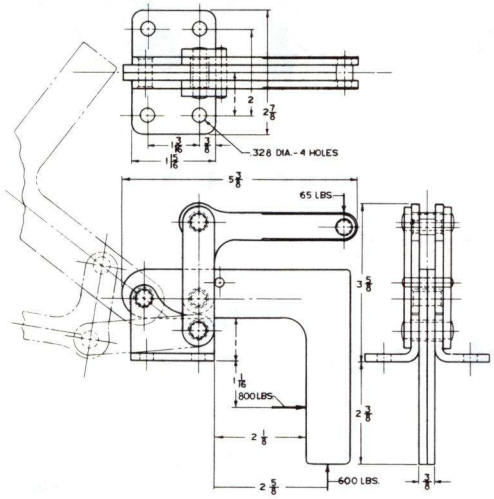
RECOMMENDED LOAD

At End of Toggle Bar 600 Lbs.
1" in Front of Base 1600 Lbs.
Weight, 1.18 Lbs.

FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE



Also
MODEL H-600(SS)
From Stainless Steel



MODEL HLC-600

TEMPLATE & PHOTO
¼ ACTUAL SIZE

RECOMMENDED LOAD

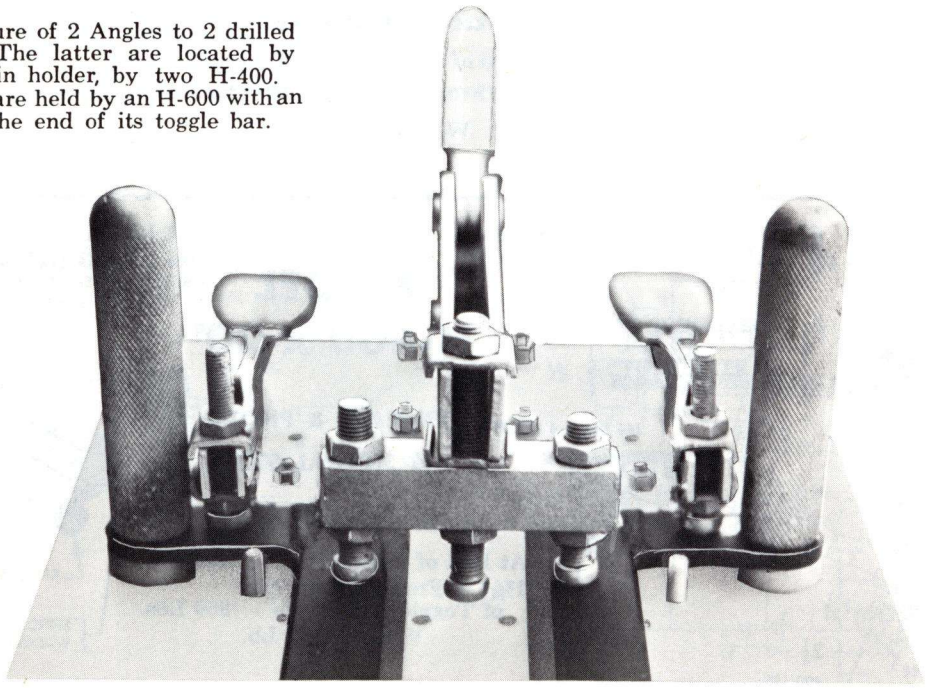
600 & 800 Lbs.
See Toggle Bar

Weight, 1.82 Lbs.



FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
R-470078-F AVAILABLE

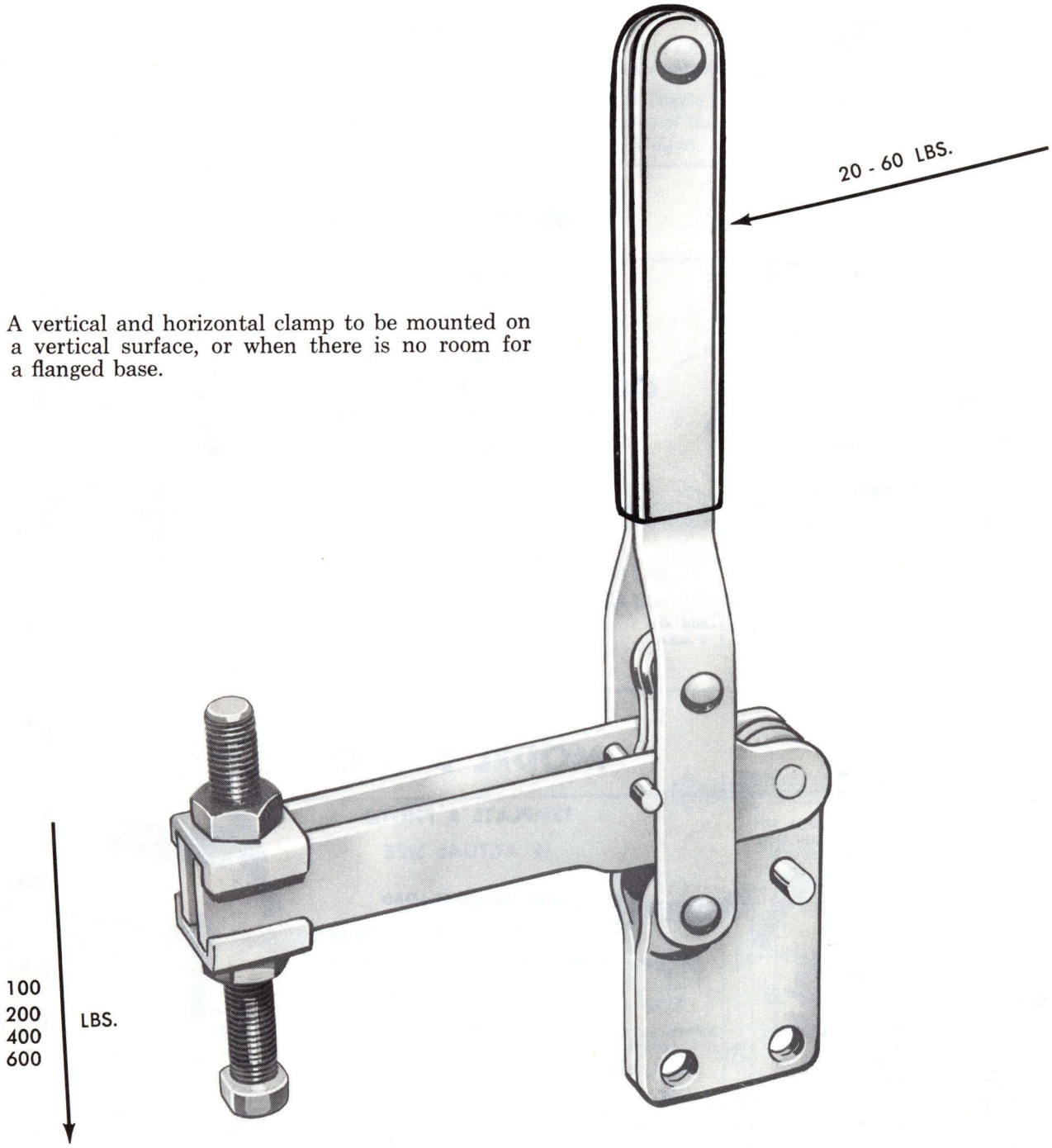
Welding Fixture of 2 Angles to 2 drilled components. The latter are located by the vertical pin holder, by two H-400. The 2 angles are held by an H-600 with an equalizer at the end of its toggle bar.



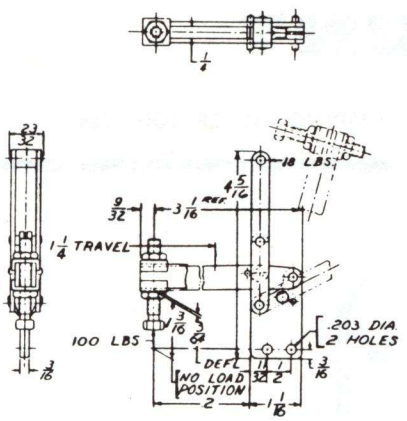
SIDE MOUNT

CLAMPING FORCE 100 - 200 - 400 - 600 lbs.

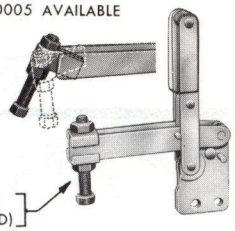
Use: A vertical and horizontal clamp to be mounted on a vertical surface, or when there is no room for a flanged base.



FULL, HALF, and QUARTER SIZE TEMPLATES are available



FOR **ANGULAR** CLAMPING BOLT RETAINER ASSEMBLY R-470005 AVAILABLE



SPINDLE ASSEMBLY N-470007 (INCLUDED)

MODEL S-100

TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

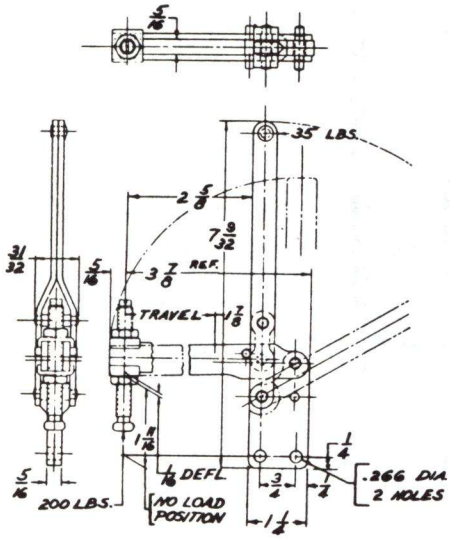
At End of Toggle Bar.....100 Lbs.
¾" in Front of Base.....230 Lbs.

Weight, 0.32 Lb.

MODEL S-200

TEMPLATE & PHOTO

¼ ACTUAL SIZE

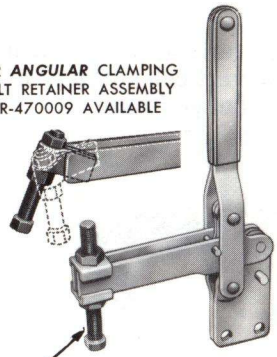


RECOMMENDED LOAD

At End of Toggle Bar.....200 Lbs.
15/16" in Front of Base.....480 Lbs.

Weight, 0.72 Lb.

FOR **ANGULAR** CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE

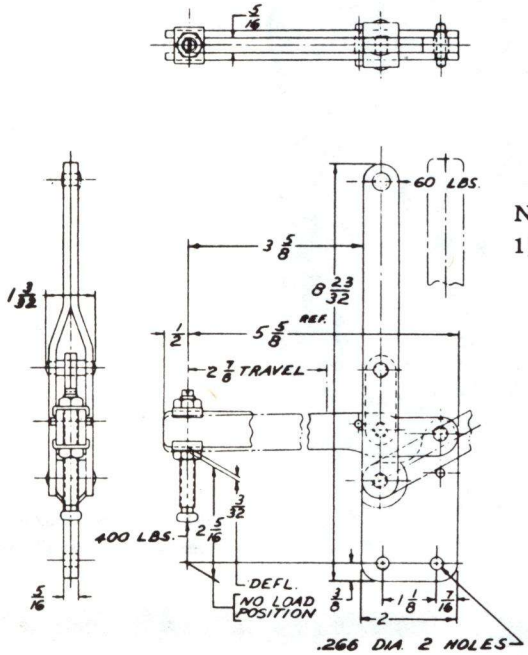


SPINDLE ASSEMBLY N-470005 (INCLUDED)

MODEL S-400 B

TEMPLATE & PHOTO

¼ ACTUAL SIZE

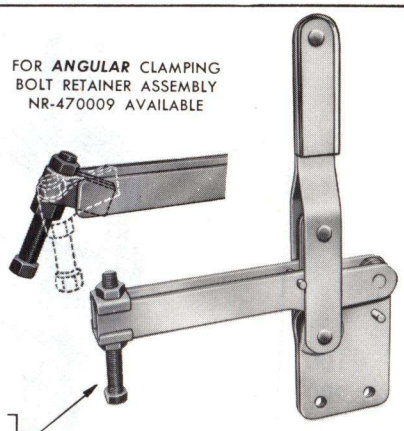


RECOMMENDED LOAD

Near End of Toggle Bar...400 Lbs.
1⅛" in Front of Base.....1050 Lbs.

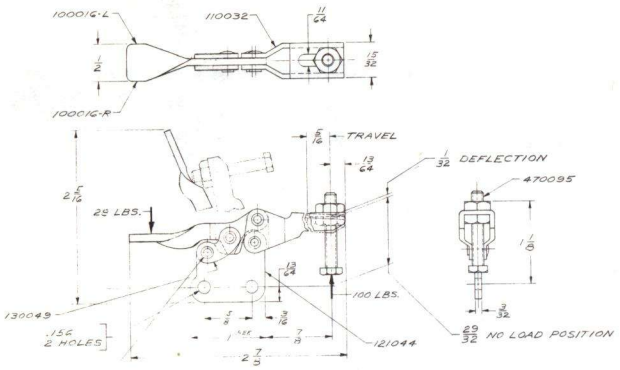
Weight, 1.50 Lbs.

FOR **ANGULAR** CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE



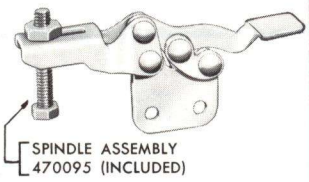
SPINDLE ASSEMBLY W-470005 (INCLUDED)

MODEL SH-100



TEMPLATE & PHOTO

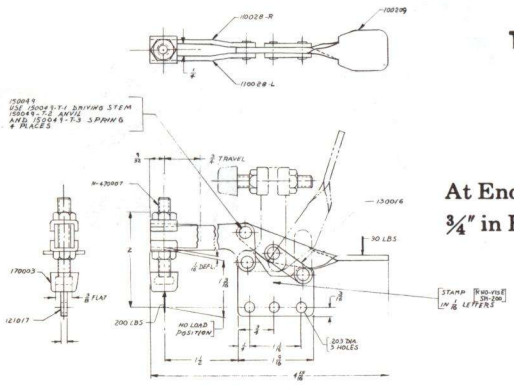
½ ACTUAL SIZE



RECOMMENDED LOAD

At End of Toggle Bar.....100 Lbs.
9/16" in Front of Base.....150 Lbs.
Weight, .065 Lb.

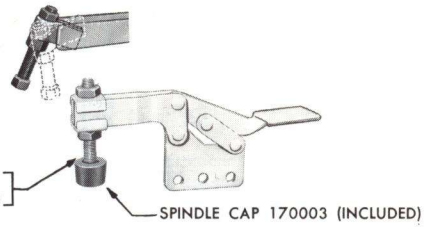
MODEL SH-200



TEMPLATE & PHOTO

¼ ACTUAL SIZE

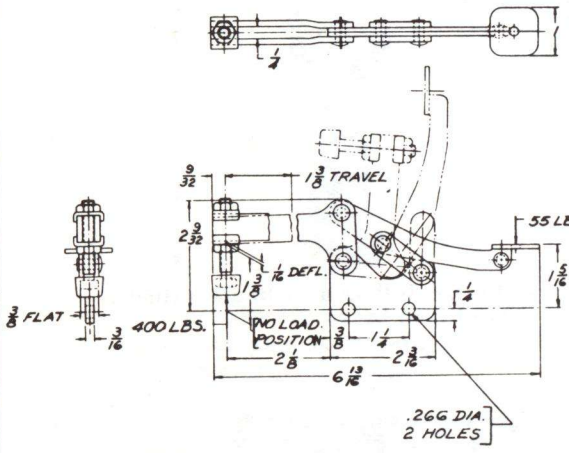
FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE



RECOMMENDED LOAD

At End of Toggle Bar.....200 Lbs.
¾" in Front of Base.....360 Lbs.
Weight, 0.24 Lb.

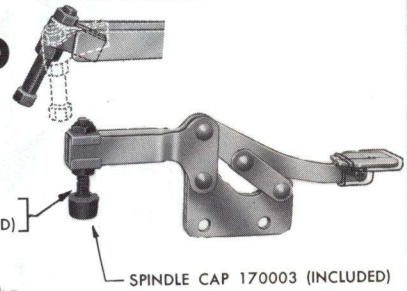
MODEL SH-400



TEMPLATE & PHOTO

¼ ACTUAL SIZE

FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE

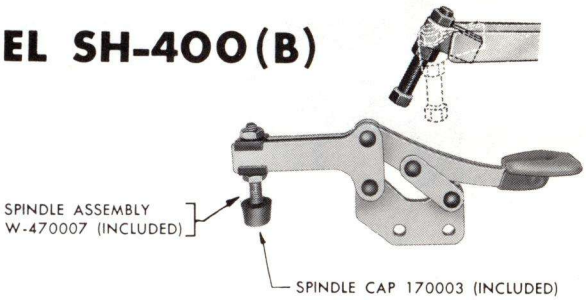


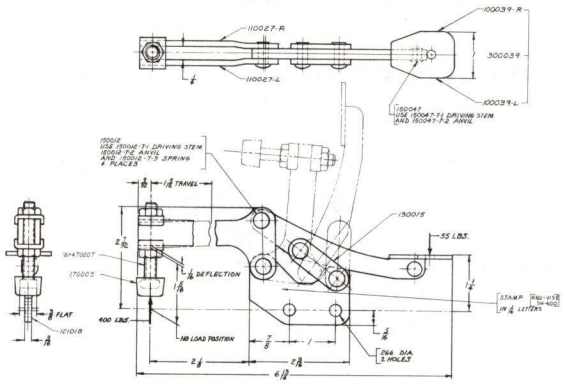
RECOMMENDED LOAD

At End of Toggle Bar.....400 Lbs.
27/32" in Front of Base.....850 Lbs.
Weight, 0.51 Lb.

FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
R-470005 AVAILABLE

MODEL SH-400(B)





RECOMMENDED LOAD

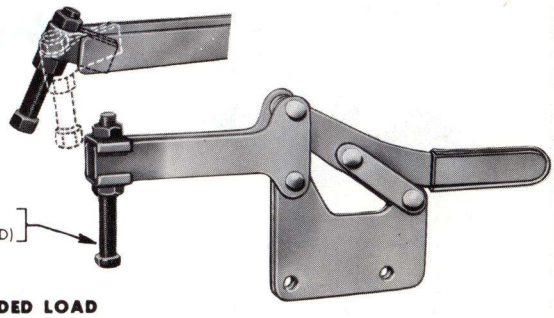
At End of Toggle Bar. 400 Lbs.
$27/32$" in Front of Base 850 Lbs.

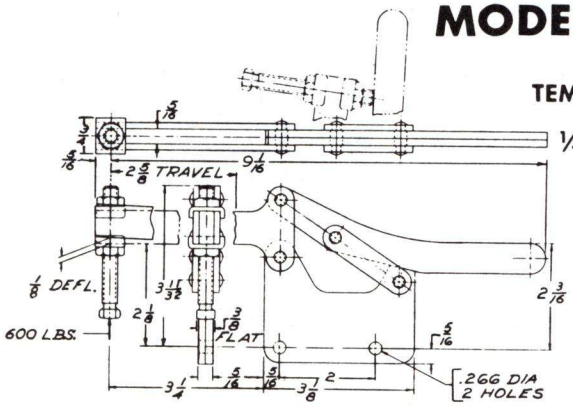
Weight, 0.51 Lb.

FOR **ANGULAR** CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

MODEL SH-600

TEMPLATE & PHOTO
¼ ACTUAL SIZE

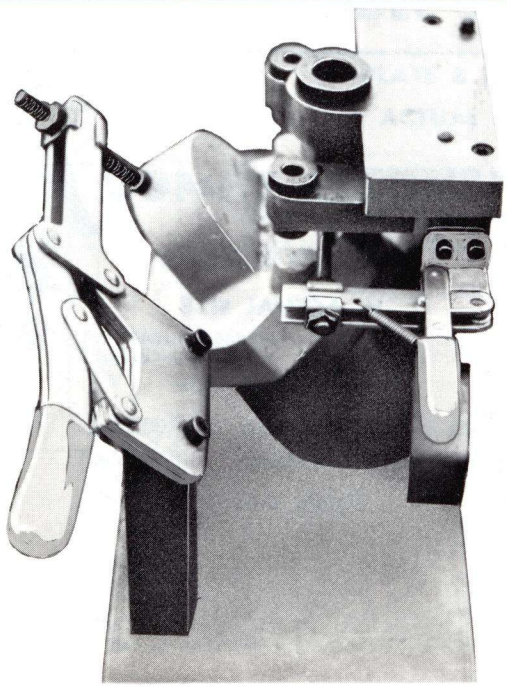




RECOMMENDED LOAD

At End of Toggle Bar 600 Lbs.
$1\frac{1}{32}$" in Front of Base. 1600 Lbs.

Weight, 1.18 Lbs.



Jig for drilling a hydraulic cylinder head held by an SH-600.

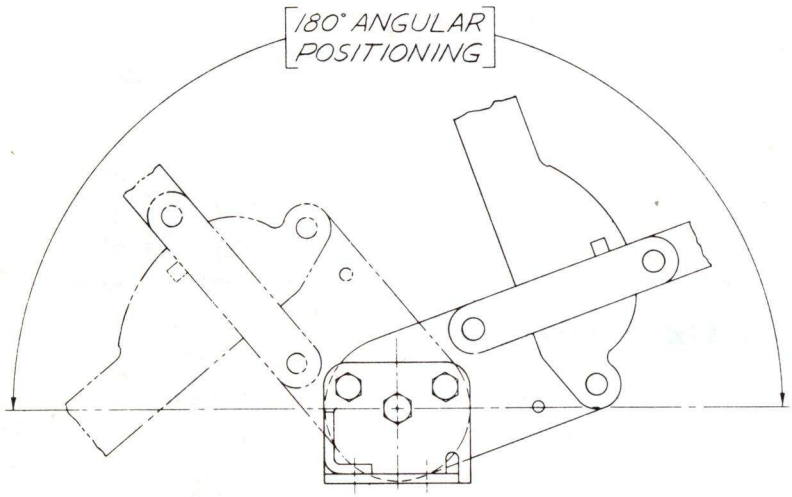
TOGGLE-ACTION CLAMPS

SIDE MOUNT + SWIVEL BASE

CLAMPING FORCE 800 - 1200 - 2000 lbs.

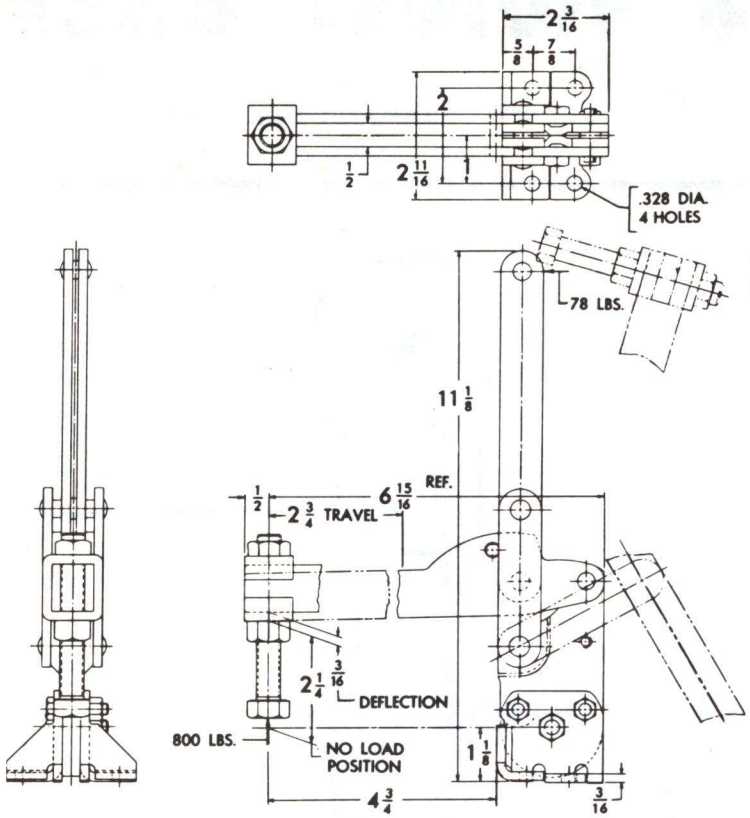
Use: I: As side mount clamps, when base is removed.

Use II: With the base positioned, the swivel plate permits ANGULAR location of the toggle bar within 180 DEGREES, the swivel plate is then permanently held by installation of the two bolts furnished.



FULL, HALF, and QUARTER SIZE TEMPLATES are available

MODEL SB-800



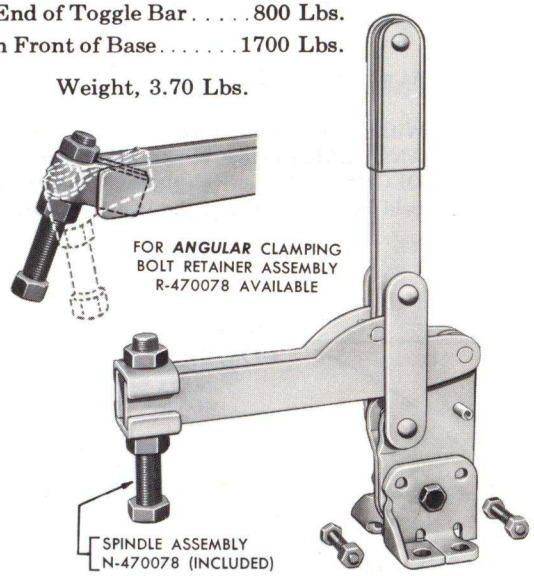
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

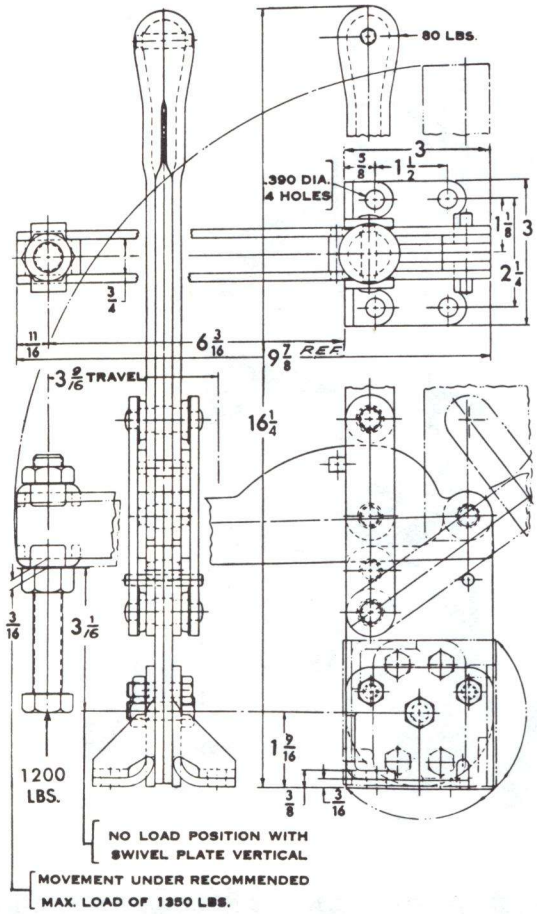
At End of Toggle Bar 800 Lbs.
2″ in Front of Base 1700 Lbs.

Weight, 3.70 Lbs.



MODEL SB-1200

SPECIAL ORDER



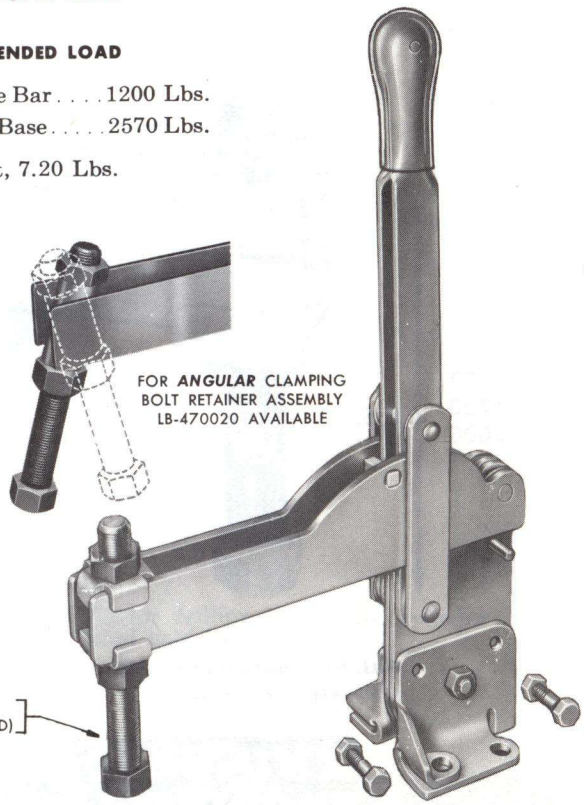
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 1200 Lbs.
2 5/8″ in Front of Base 2570 Lbs.

Weight, 7.20 Lbs.



KNU-VISE PRODUCTS

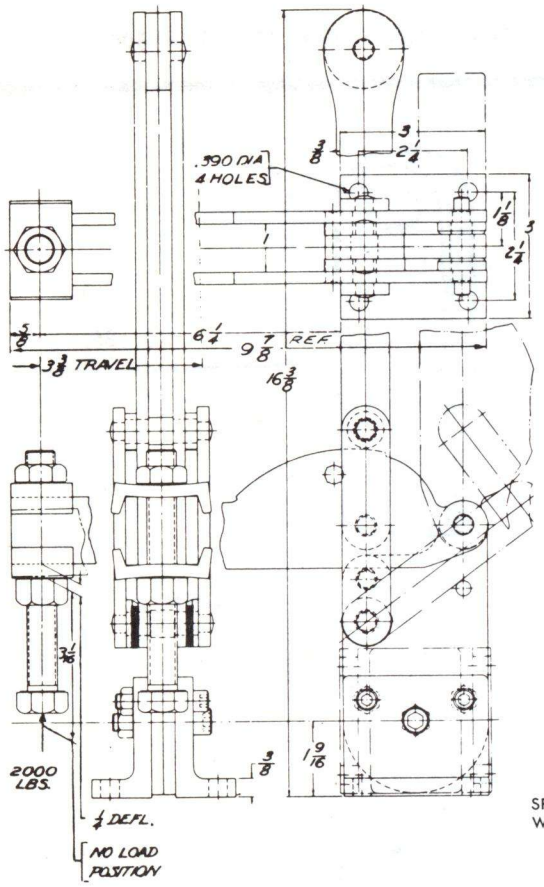
LAPEER, MICHIGAN

SPECIAL ORDER

MODEL SB-2000

TEMPLATE & PHOTO

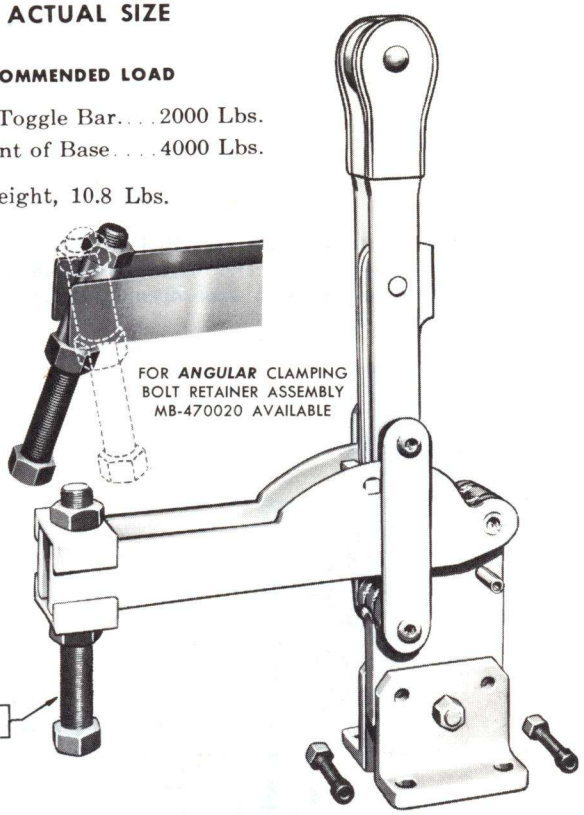
¼ ACTUAL SIZE



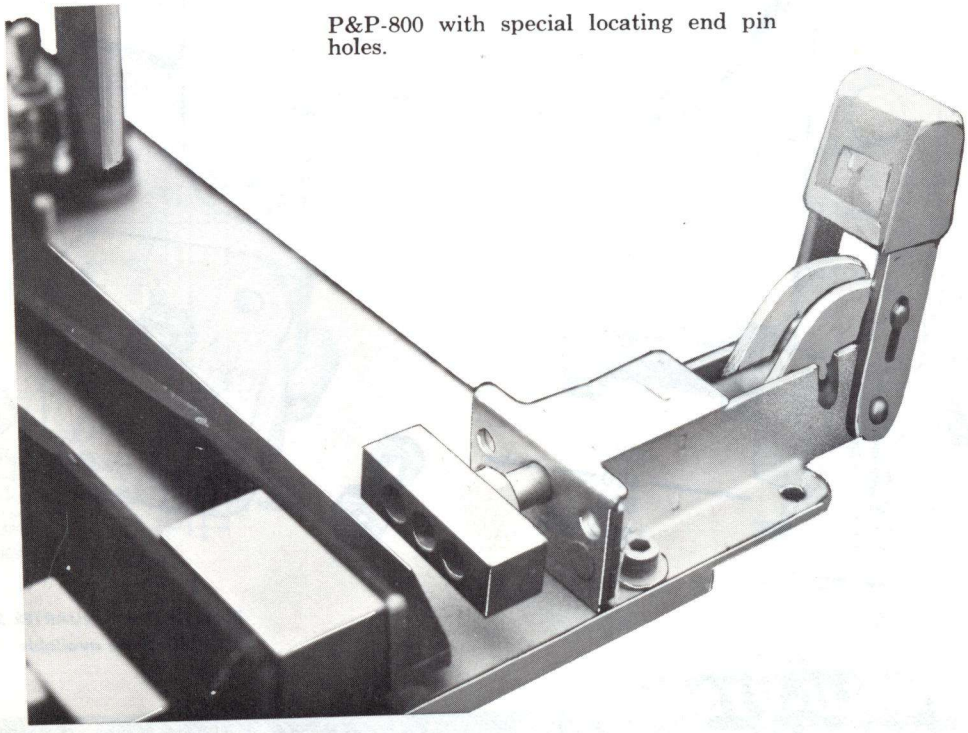
RECOMMENDED LOAD

At End of Toggle Bar. . . . 2000 Lbs.
2 7/8" in Front of Base. . . . 4000 Lbs.

Weight, 10.8 Lbs.



P&P-800 with special locating end pin holes.

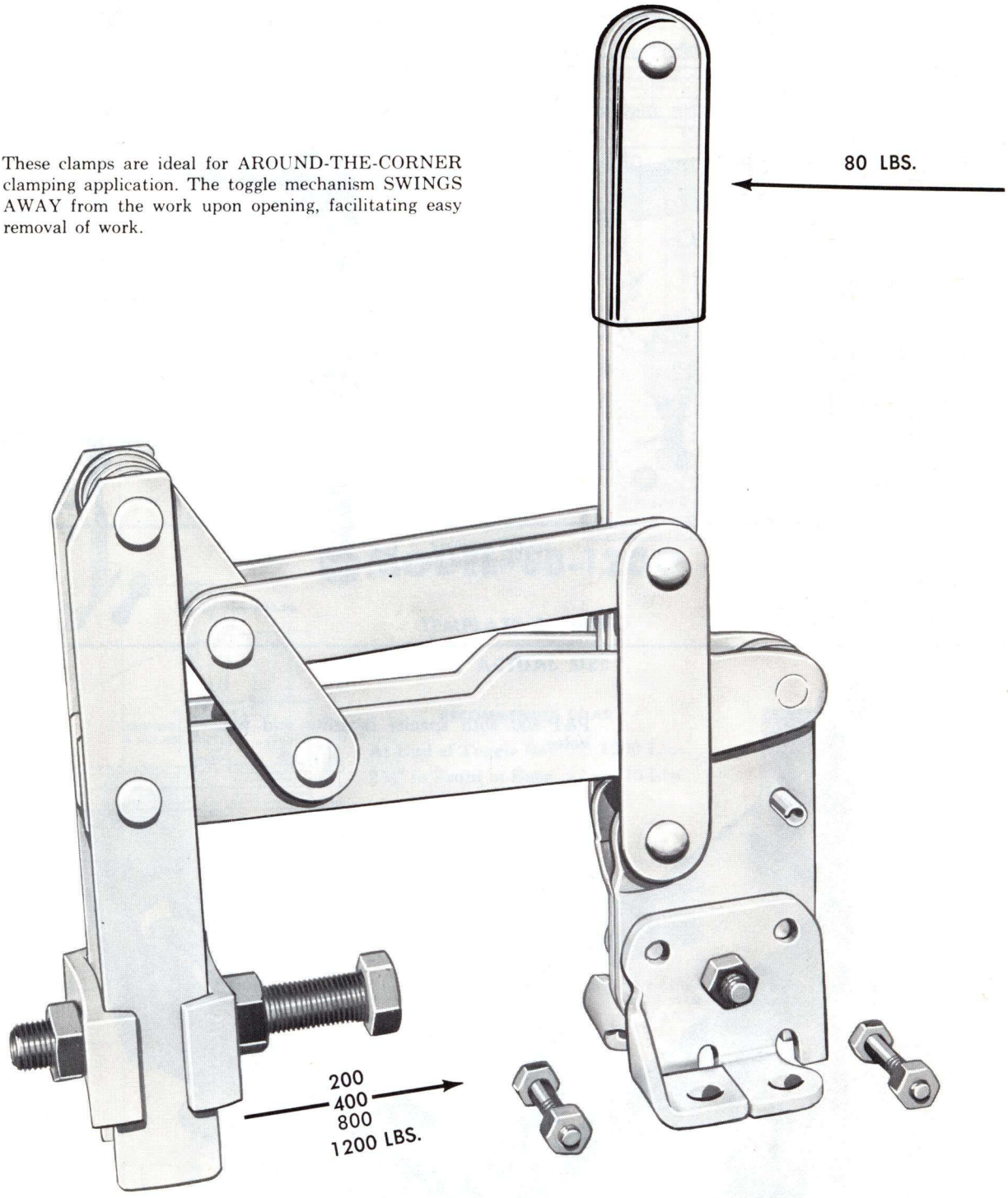


VERTICAL HANDLE AND SWIVEL OR SIDE MOUNT

DOUBLE TOGGLE ACTION

CLAMPING FORCE 200 - 400 - 800- 1200 lbs.

Use: These clamps are ideal for AROUND-THE-CORNER clamping application. The toggle mechanism SWINGS AWAY from the work upon opening, facilitating easy removal of work.



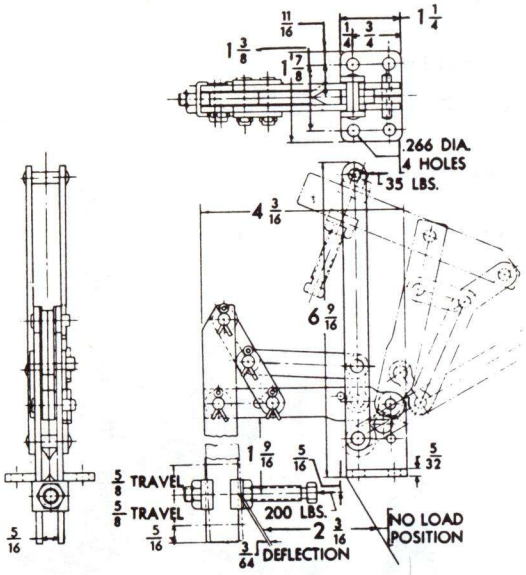
FULL, HALF and QUARTER SIZE TEMPLATES are available

SPECIAL ORDER

MODEL DTV-200

TEMPLATE & PHOTO

¼ ACTUAL SIZE



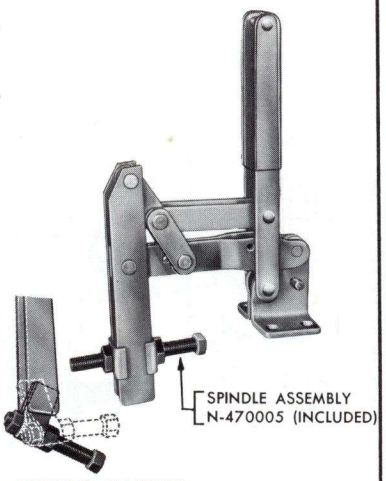
RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar.....300 Lbs.

1 9/16" from Bottom of Toggle Bar.....200 Lbs.

2 3/16" from Bottom of Toggle Bar.....150 Lbs.

Weight, 1.18 Lbs.



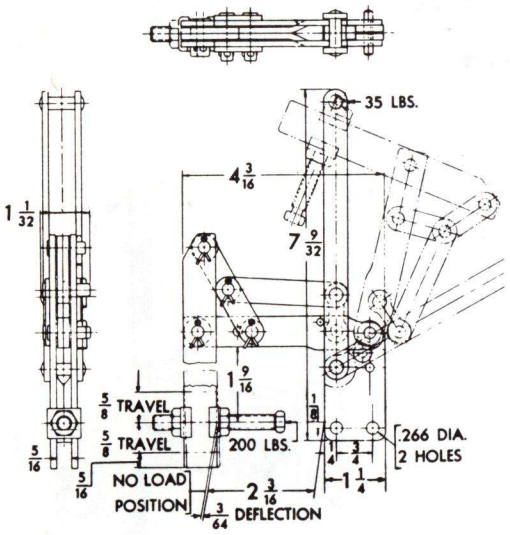
FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

MODEL DTS-200

SPECIAL ORDER

TEMPLATE & PHOTO

¼ ACTUAL SIZE



RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar.....300 Lbs.

1 9/16" from Bottom of Toggle Bar.....200 Lbs.

2 3/16" from Bottom of Toggle Bar.....150 Lbs.

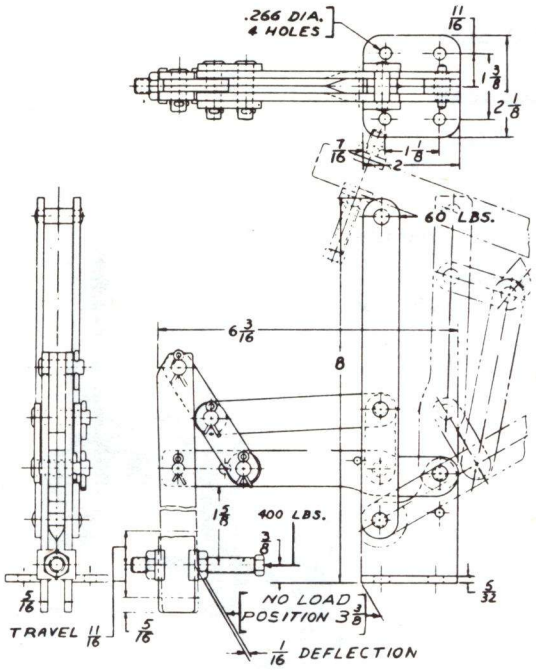
Weight, 1.18 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

SPECIAL ORDER

MODEL DTV-400



TEMPLATE & PHOTO

¼ ACTUAL SIZE

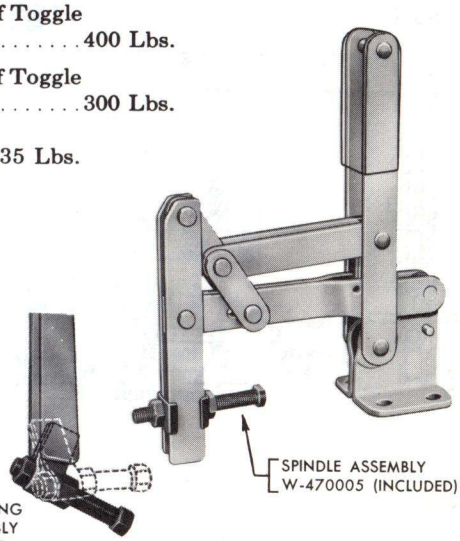
RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar.....600 Lbs.

1 5/8" from Bottom of Toggle Bar.....400 Lbs.

2 5/16" from Bottom of Toggle Bar.....300 Lbs.

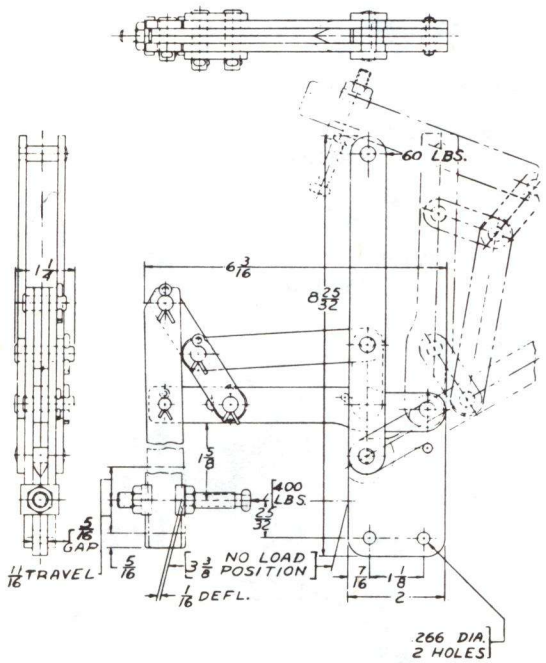
Weight, 2.35 Lbs.



FOR **ANGULAR** CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE

SPECIAL ORDER

MODEL DTS-400



TEMPLATE & PHOTO

¼ ACTUAL SIZE

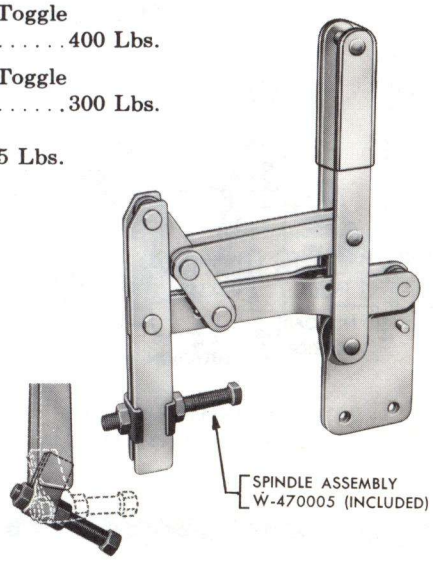
RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar.....600 Lbs.

1 5/8" from Bottom of Toggle Bar.....400 Lbs.

2 5/16" from Bottom of Toggle Bar.....300 Lbs.

Weight, 2.35 Lbs.



FOR **ANGULAR** CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER

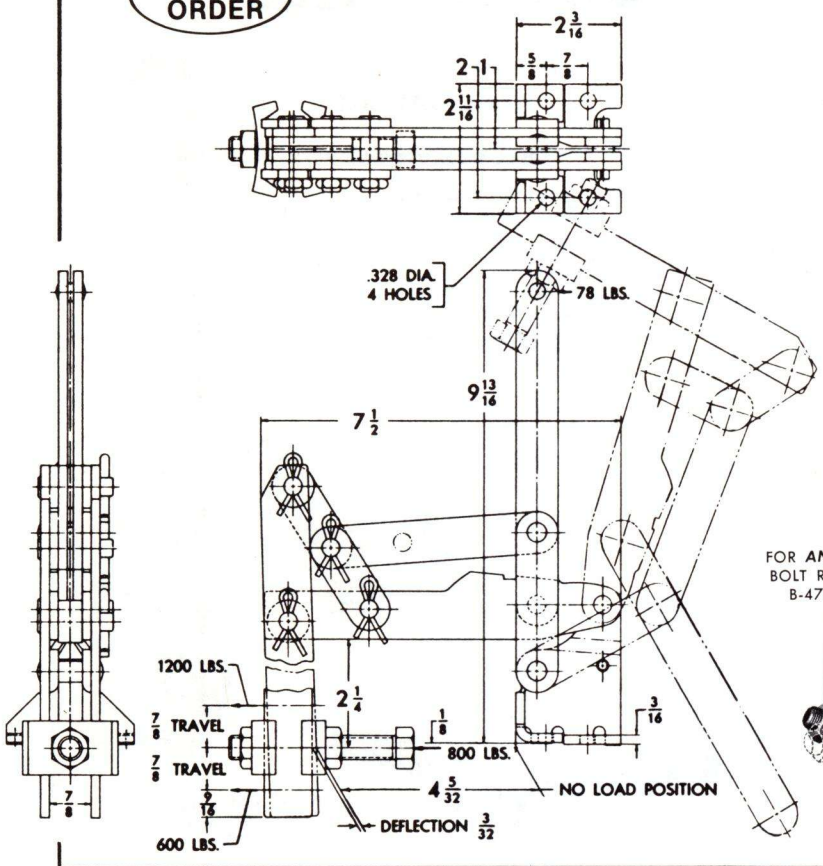
MODEL DTV-800

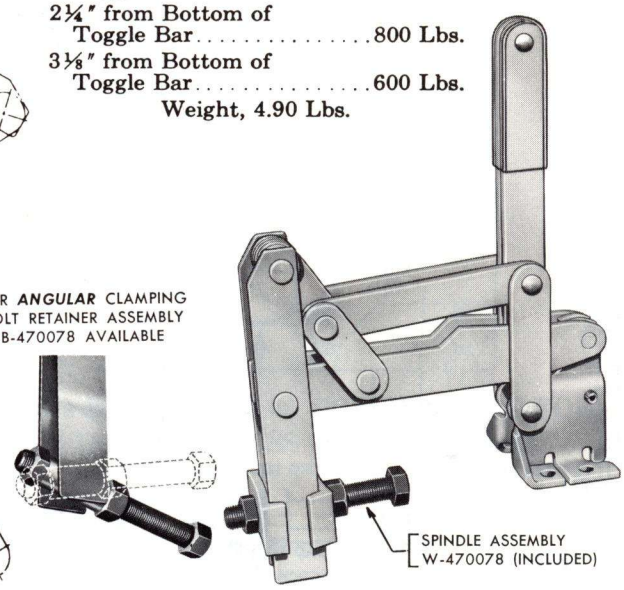
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

1⅜" from Bottom of Toggle Bar 1200 Lbs.
2¼" from Bottom of Toggle Bar 800 Lbs.
3⅛" from Bottom of Toggle Bar 600 Lbs.
Weight, 4.90 Lbs.





SPECIAL ORDER

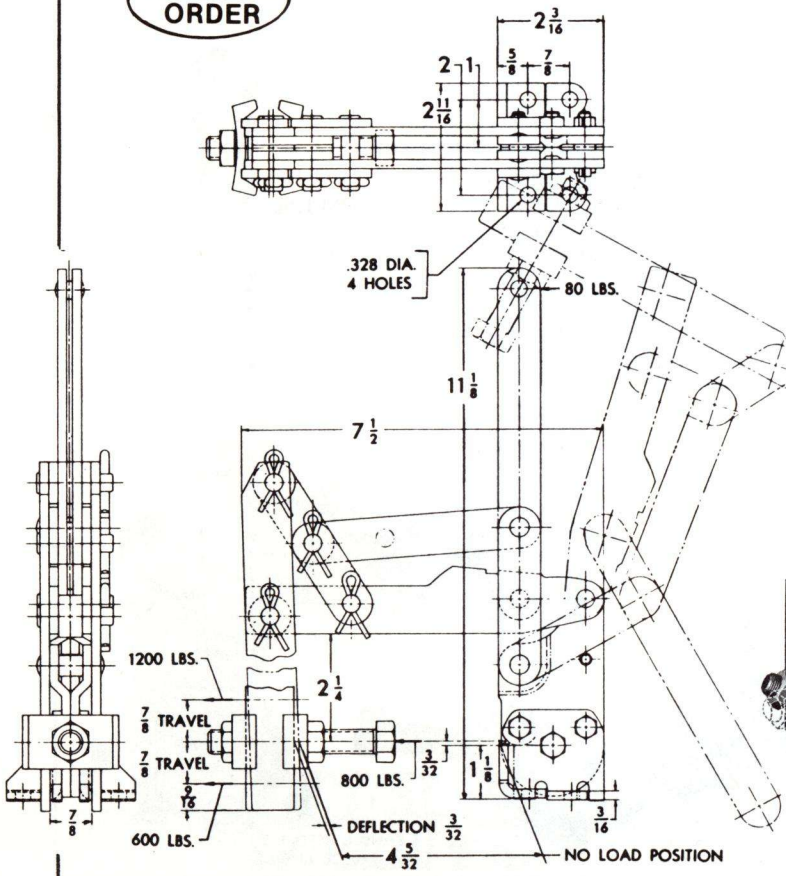
MODEL DTSB-800

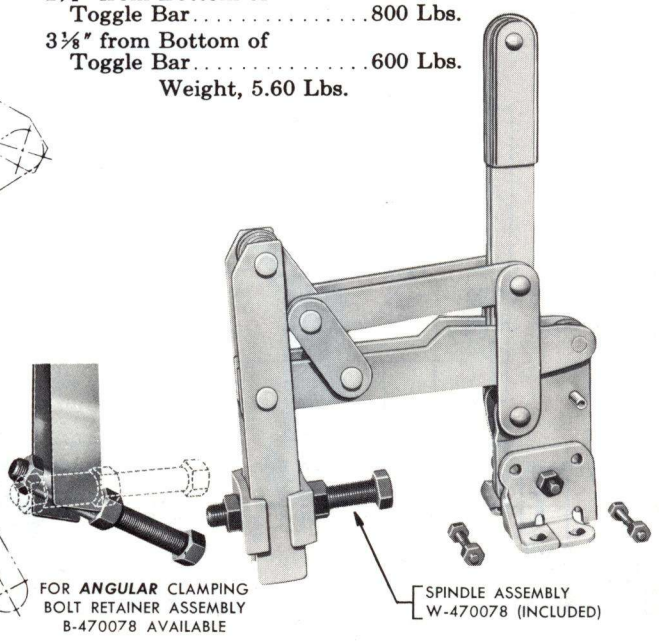
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

1⅜" from Bottom of Toggle Bar 1200 Lbs.
2¼" from Bottom of Toggle Bar 800 Lbs.
3⅛" from Bottom of Toggle Bar 600 Lbs.
Weight, 5.60 Lbs.



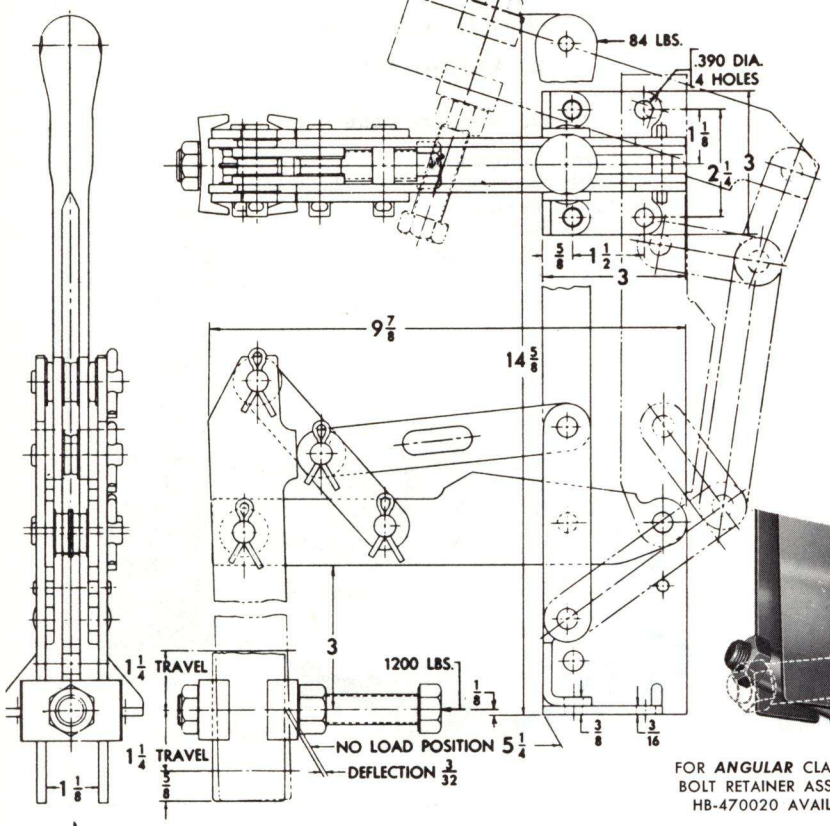


KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER

MODEL DTV-1200

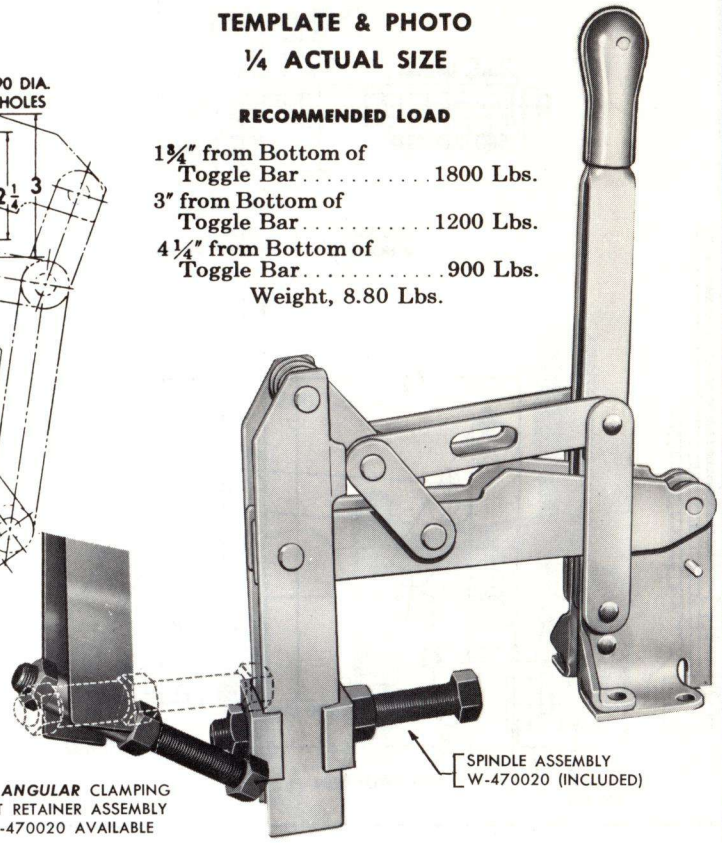


TEMPLATE & PHOTO
¼ ACTUAL SIZE

RECOMMENDED LOAD

1¾" from Bottom of Toggle Bar 1800 Lbs.
3" from Bottom of Toggle Bar 1200 Lbs.
4¼" from Bottom of Toggle Bar 900 Lbs.

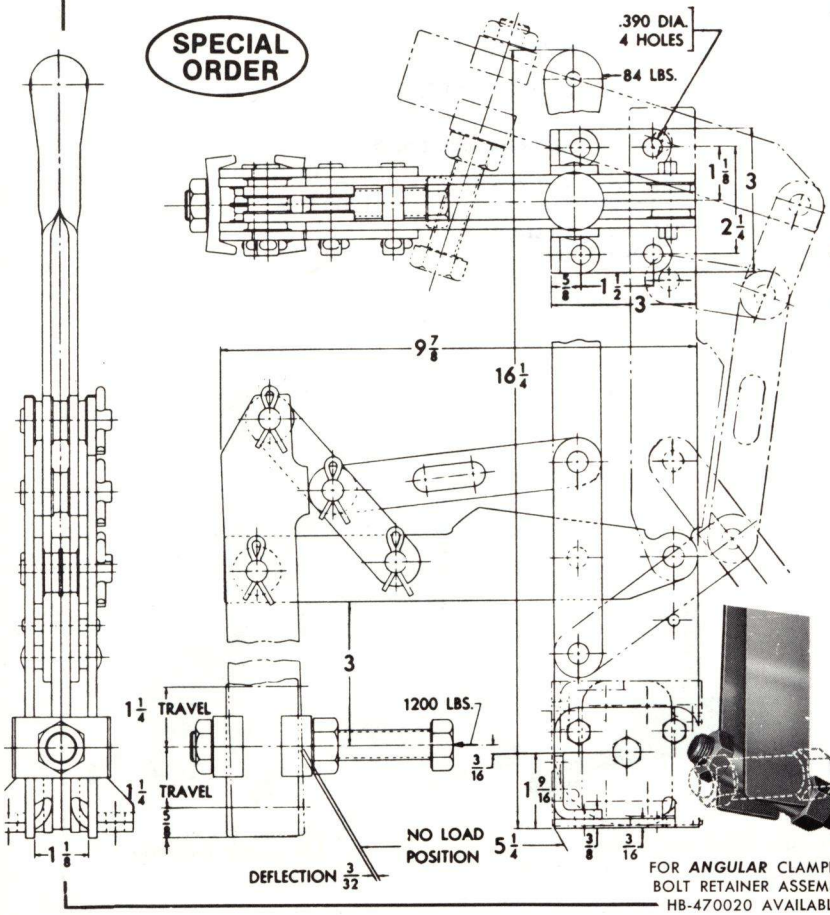
Weight, 8.80 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
HB-470020 AVAILABLE

SPECIAL ORDER

MODEL DTSB-1200

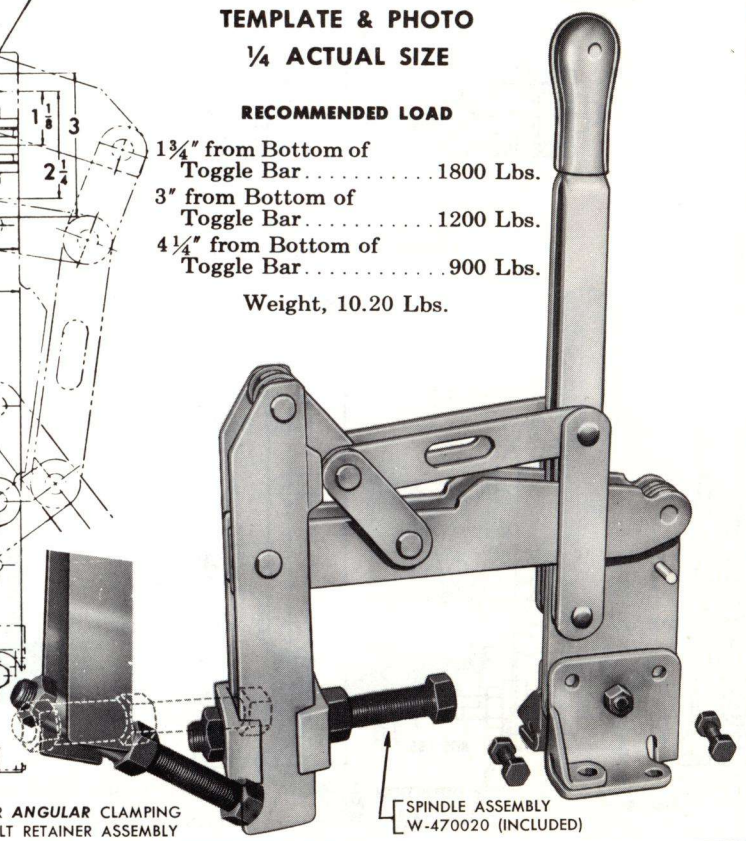


TEMPLATE & PHOTO
¼ ACTUAL SIZE

RECOMMENDED LOAD

1¾" from Bottom of Toggle Bar 1800 Lbs.
3" from Bottom of Toggle Bar 1200 Lbs.
4¼" from Bottom of Toggle Bar 900 Lbs.

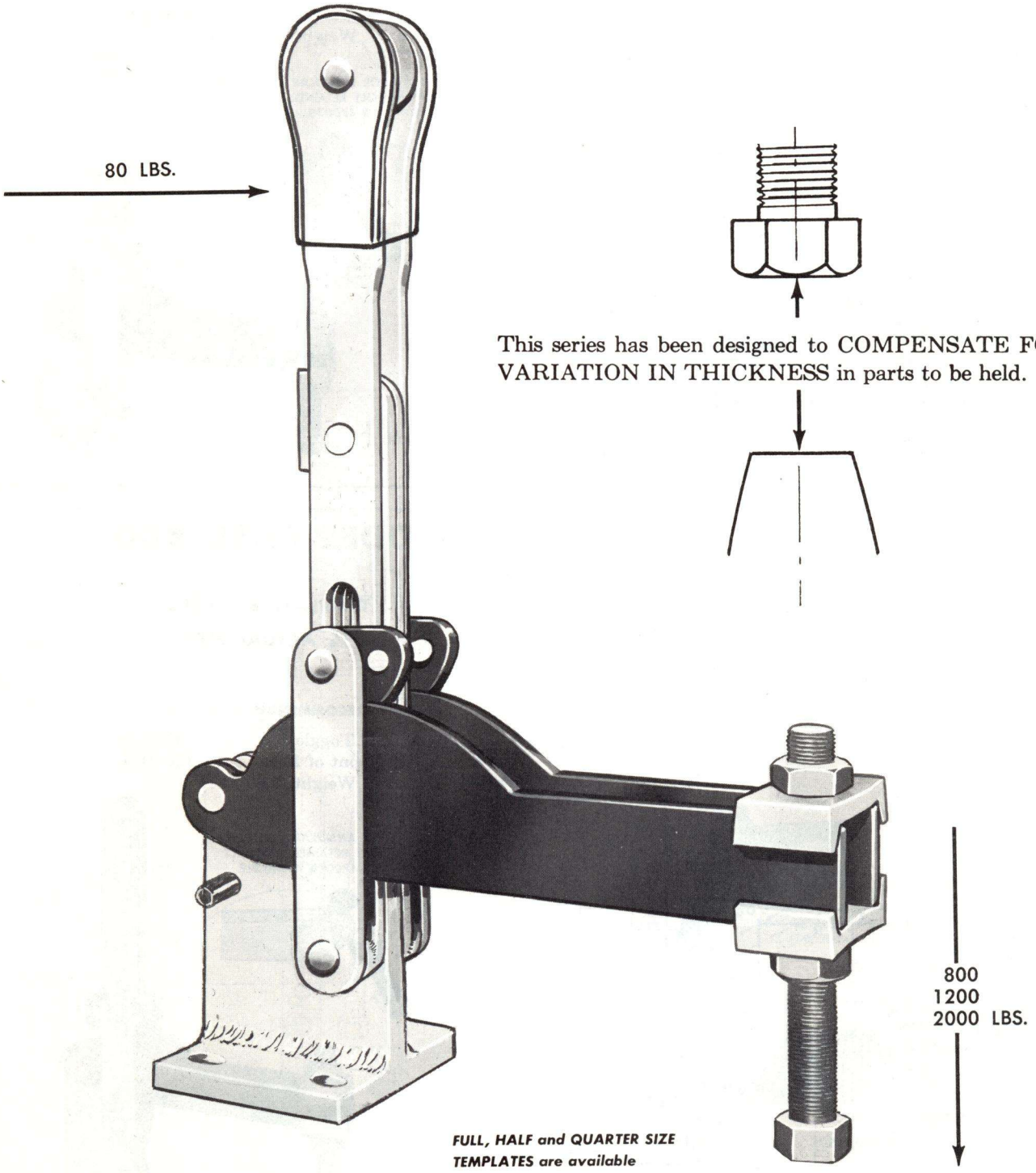
Weight, 10.20 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
HB-470020 AVAILABLE

CAM-ACTION CLAMPS

CLAMPING FORCE 800 - 1200 - 2000 lbs.

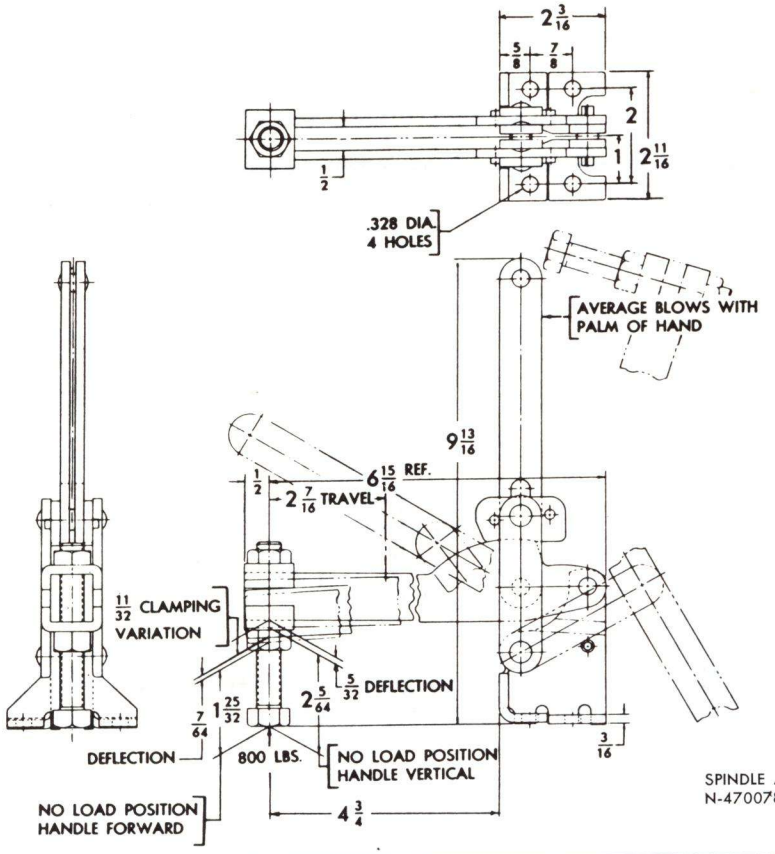


FULL, HALF and QUARTER SIZE TEMPLATES are available

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

MODEL CAV-800

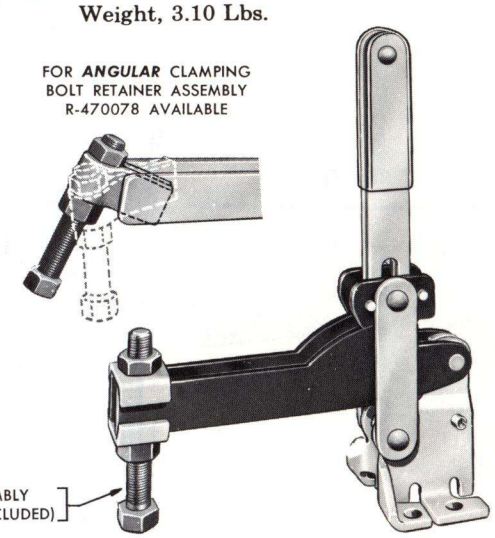


TEMPLATE & PHOTO

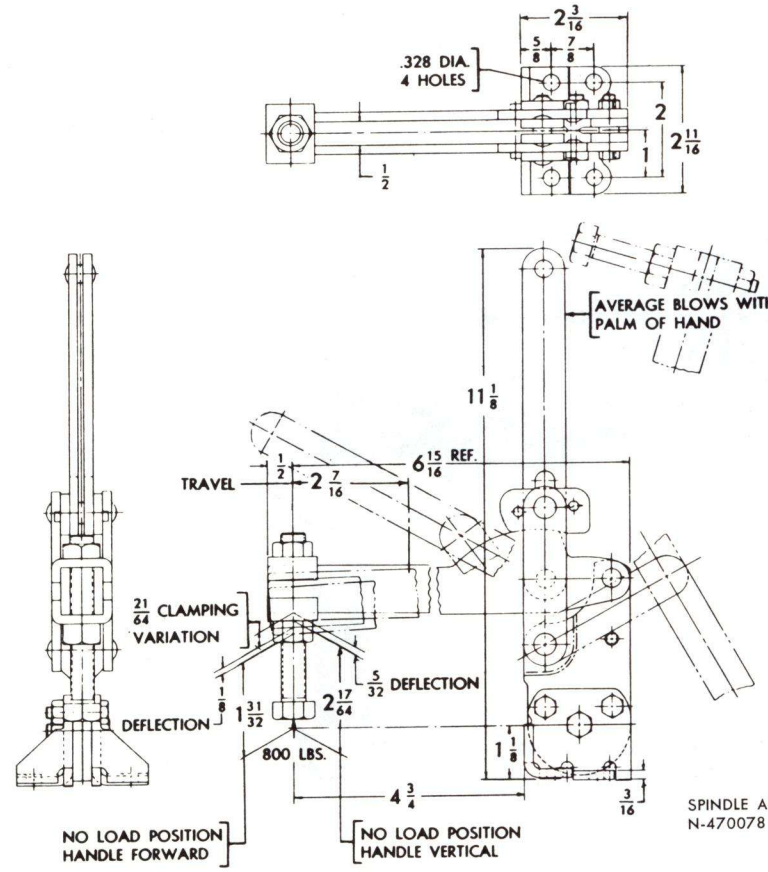
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 800 Lbs.
2 5/16" in Front of Base 1500 Lbs.
Weight, 3.10 Lbs.



MODEL CASB-800

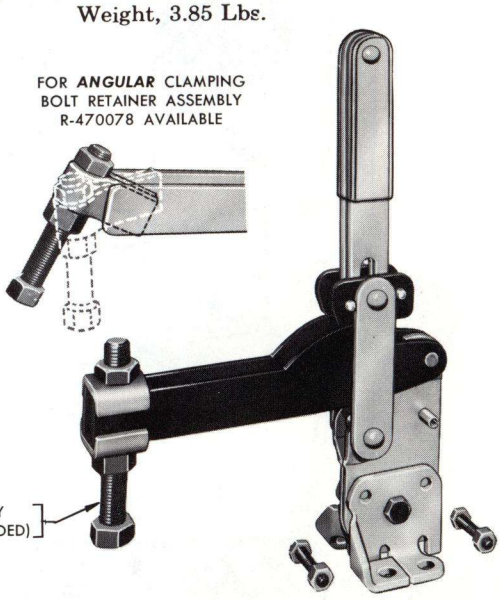


TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

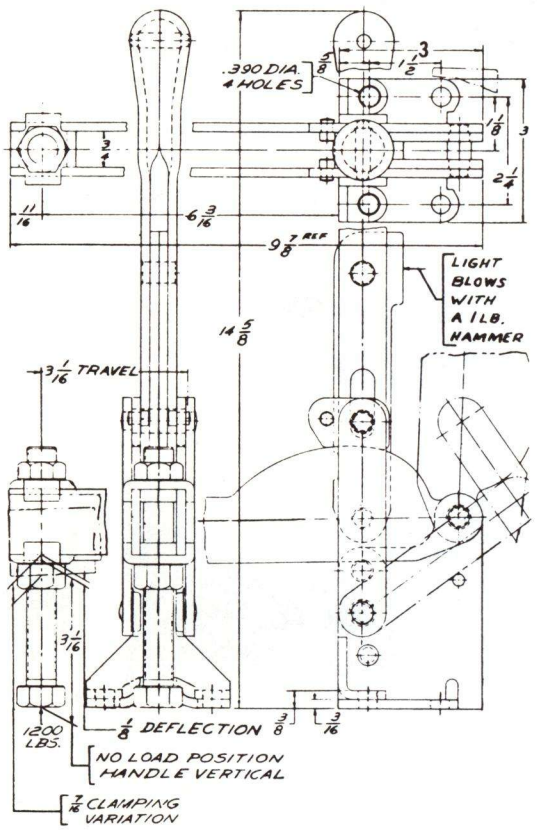
At End of Toggle Bar 800 Lbs.
2 5/16" in Front of Base 1500 Lbs.
Weight, 3.85 Lbs.



KNU-VISE PRODUCTS

LAPEER, MICHIGAN

MODEL CAV-1200



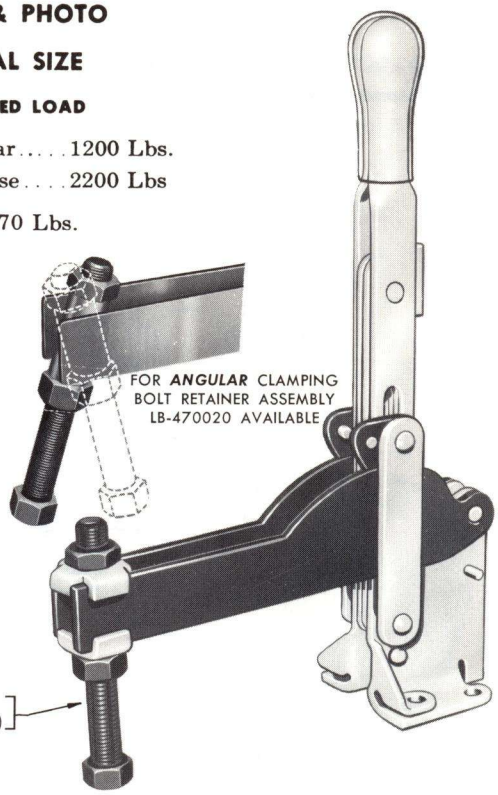
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

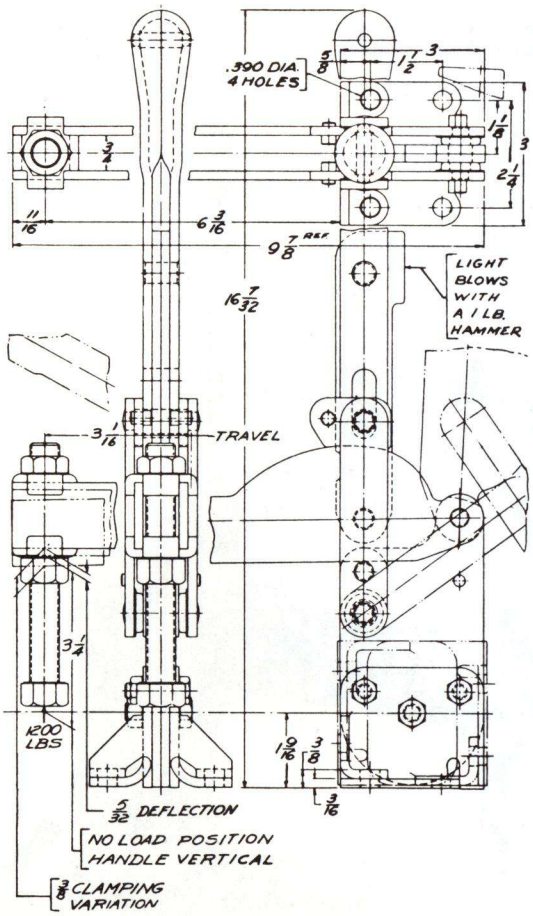
At End of Toggle Bar.....1200 Lbs.
3⅛" in Front of Base....2200 Lbs

Weight, 6.70 Lbs.



MODEL CASB-1200

SPECIAL ORDER



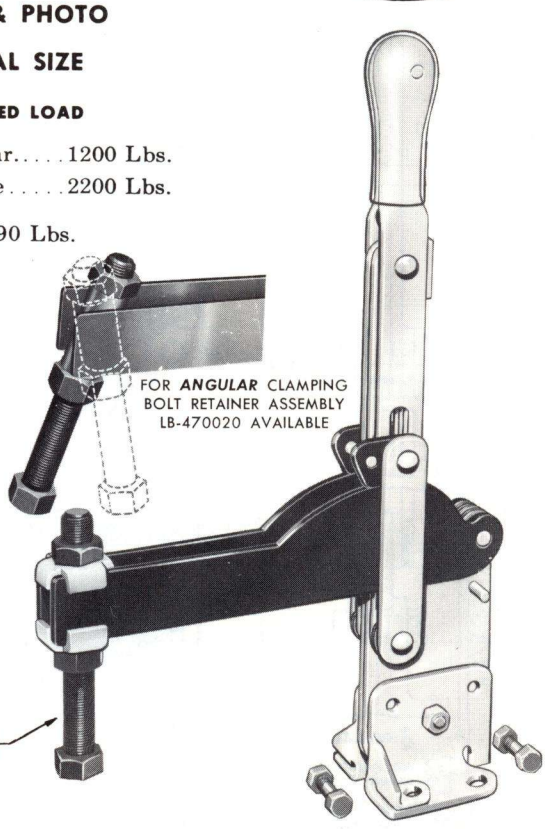
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar.....1200 Lbs.
3⅛" in Front of Base.....2200 Lbs.

Weight, 7.90 Lbs.



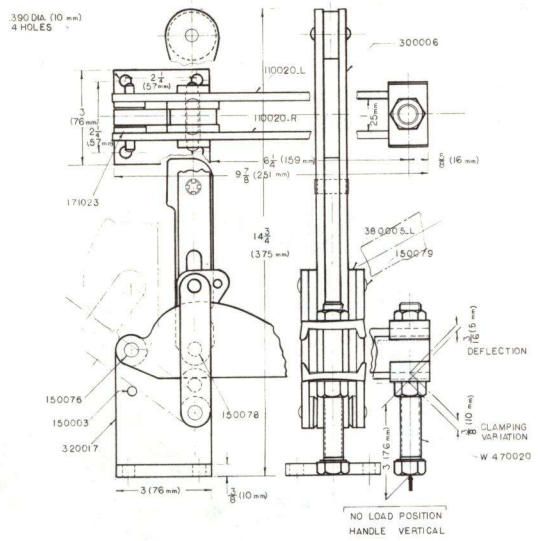
KNU-VISE PRODUCTS

LAPEER, MICHIGAN

MODEL CAV-2000

TEMPLATE & PHOTO

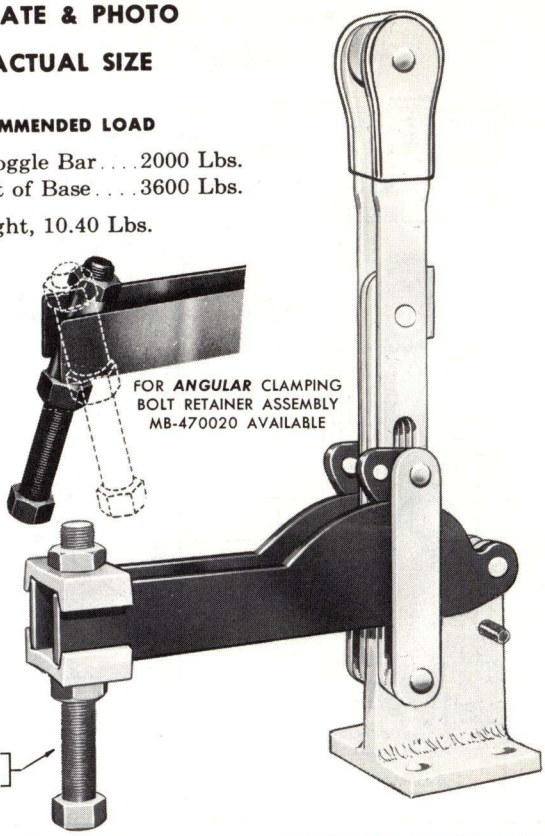
¼ ACTUAL SIZE

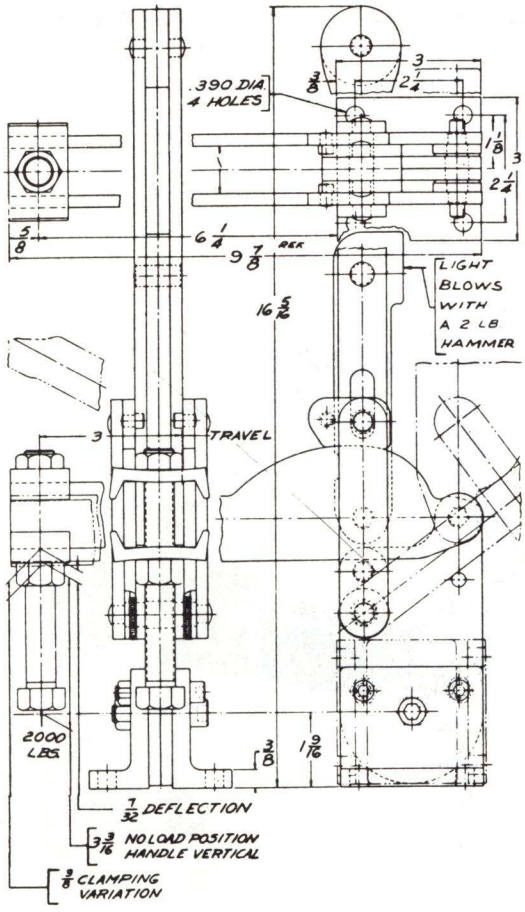


RECOMMENDED LOAD

At End of Toggle Bar....2000 Lbs.
3¼" in Front of Base....3600 Lbs.

Weight, 10.40 Lbs.





MODEL CASB-2000

SPECIAL ORDER

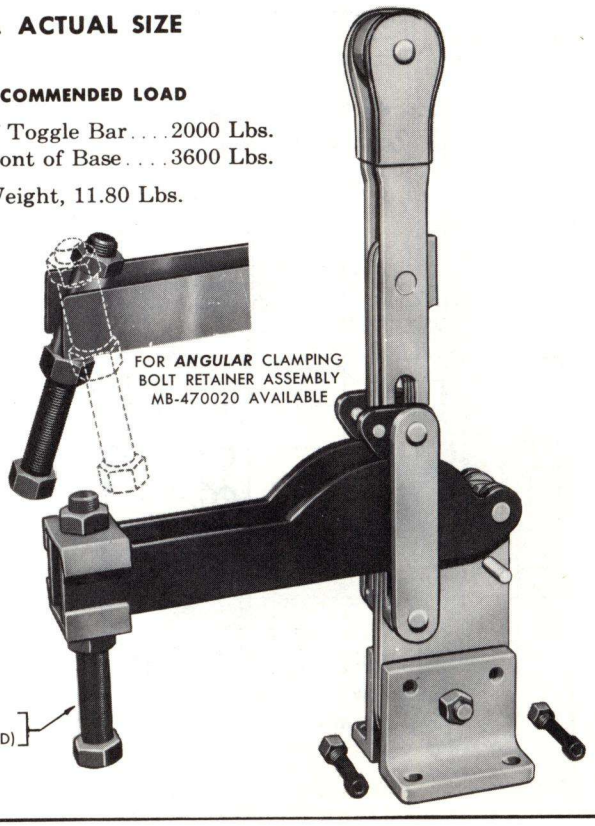
TEMPLATE & PHOTO

¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar....2000 Lbs.
3¼" in Front of Base....3600 Lbs.

Weight, 11.80 Lbs.

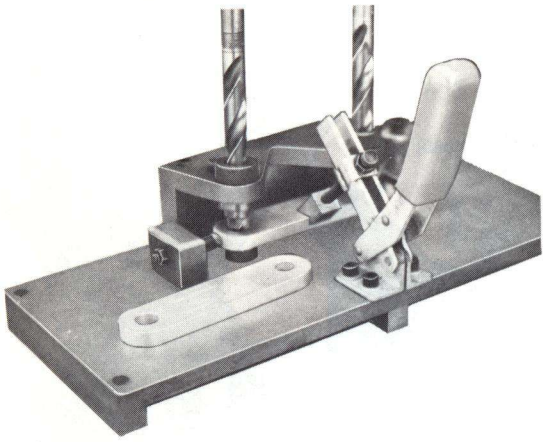


TWO DIRECTIONAL FORCES

J-TYPE

CLAMPING FORCE 200-400 lbs.

A drilling jig fixture for drilling links. A J-200 is used with special right angle spindle block. (See Accessories page 95).

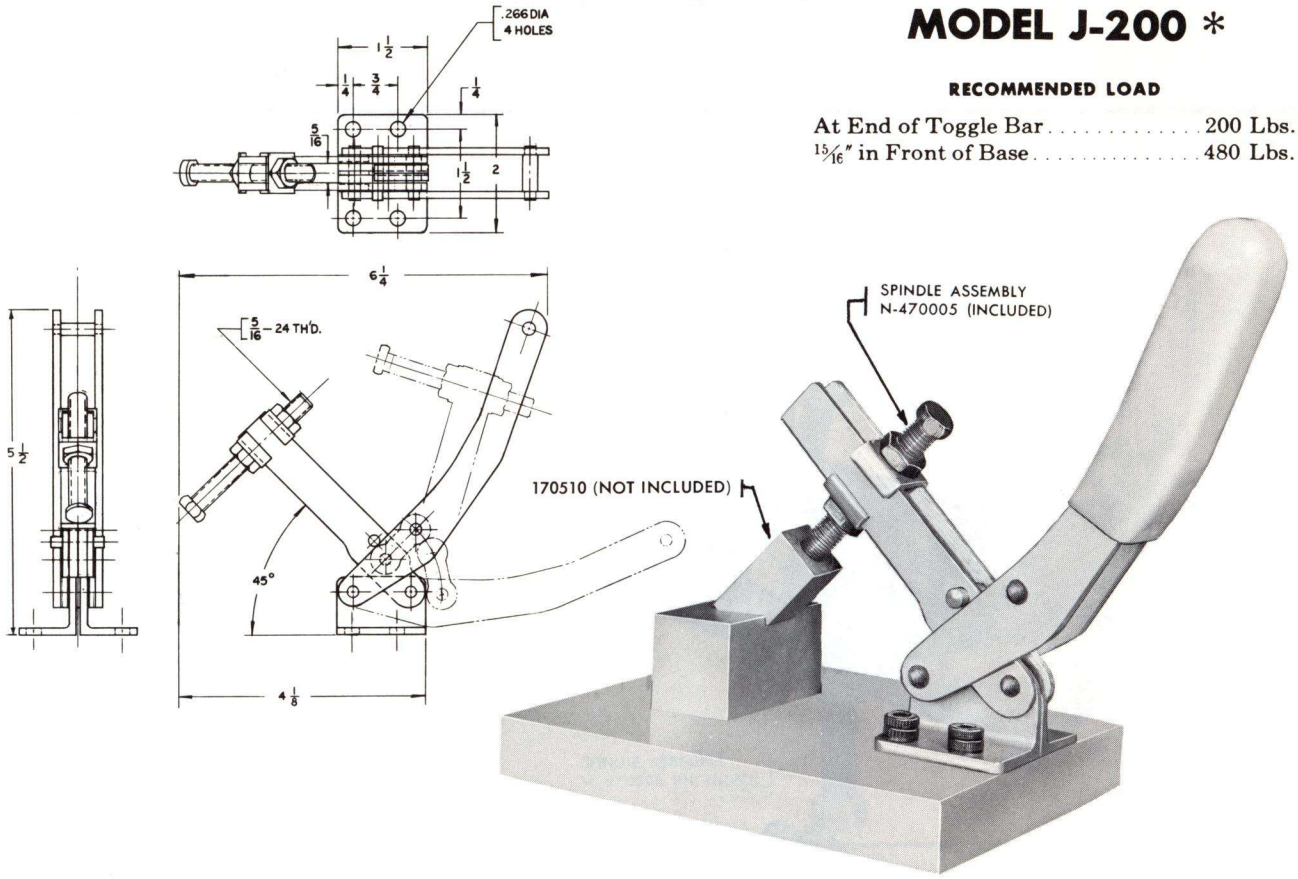


Use: It is 2 Clamps in one to exert 2 perpendicular forces for a fast and easy clamping.

MODEL J-200 *

RECOMMENDED LOAD

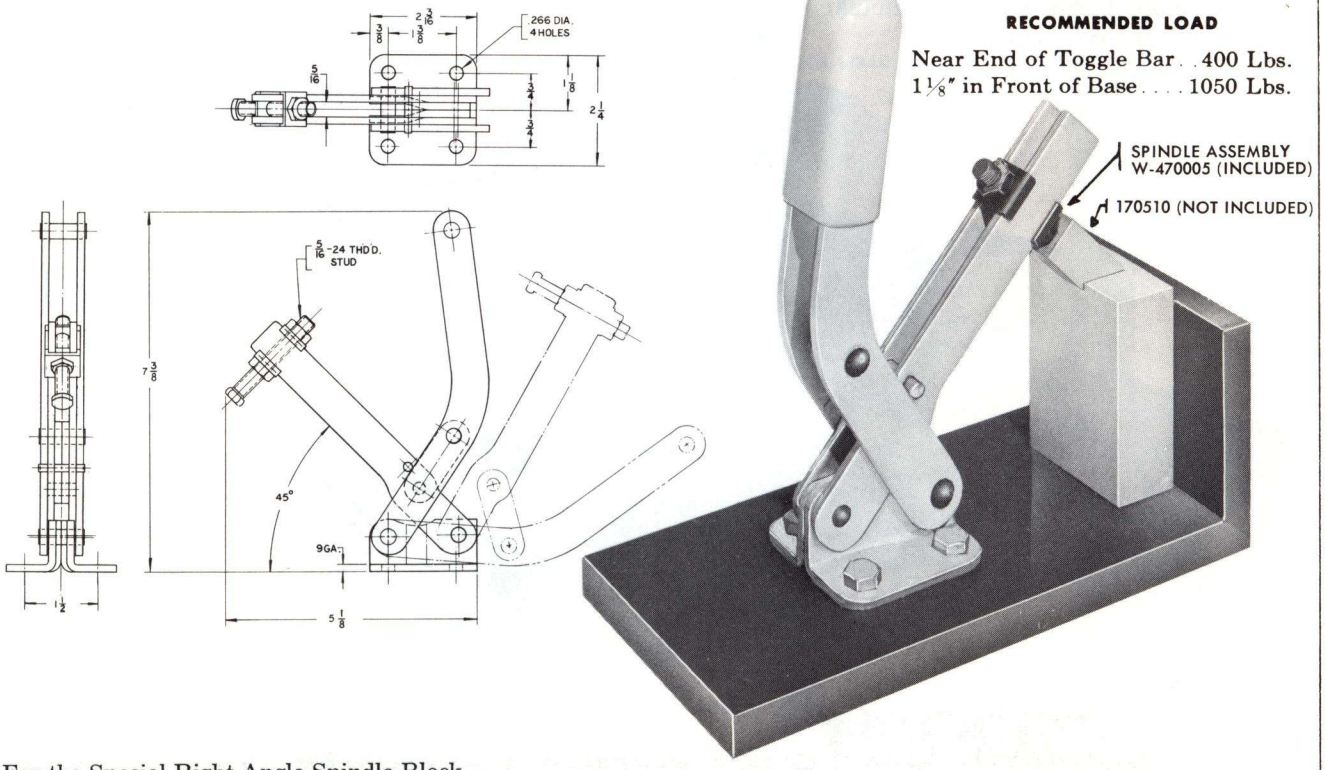
At End of Toggle Bar 200 Lbs.
15/16" in Front of Base 480 Lbs.



MODEL J-400 *

RECOMMENDED LOAD

Near End of Toggle Bar . . 400 Lbs.
1 1/8" in Front of Base 1050 Lbs.

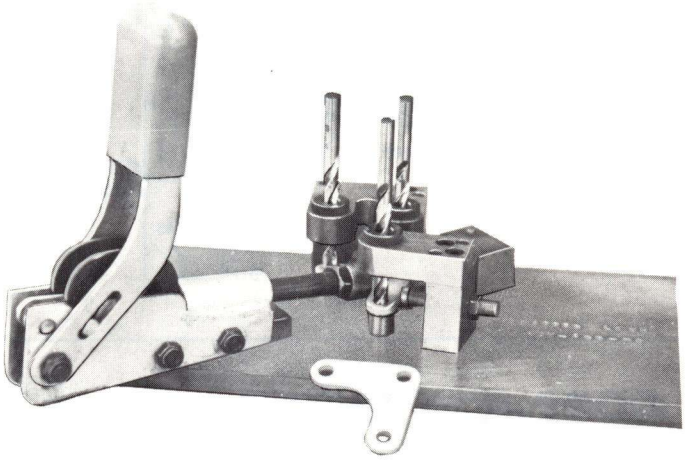


* For the Special Right Angle Spindle Block
(see Accessories Page 95)

PUSH & PULL CLAMPS
PULL CLAMPS

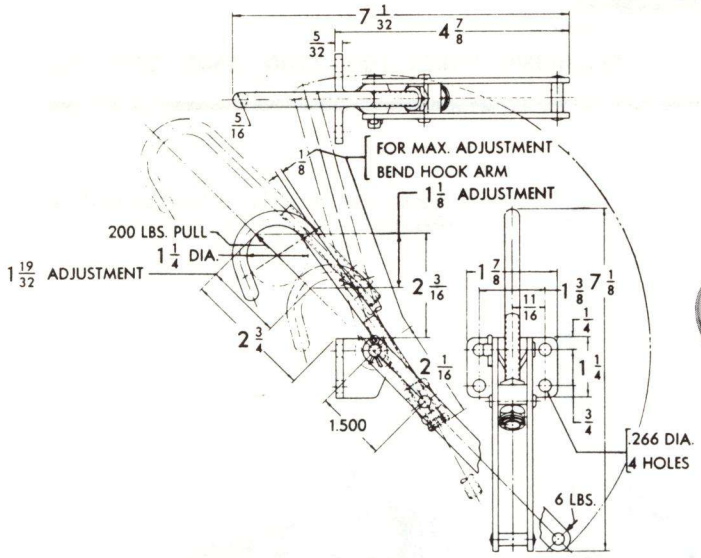
CLAMPING FORCE 100 - 1200 - 1600 - 2000 lbs.

A P&PS-1200 securely locks that tri-link for drilling.



Use: They are designed to exert a continuous pushing or pulling force, during the entire travel of the plunger and holding workpieces in pushing or pulling position during a process.

FULL, HALF and QUARTER SIZE TEMPLATES are available



MODEL PCH-100

TEMPLATES & PHOTOS ¼ ACTUAL SIZE

Weight, 0.60 Lb.

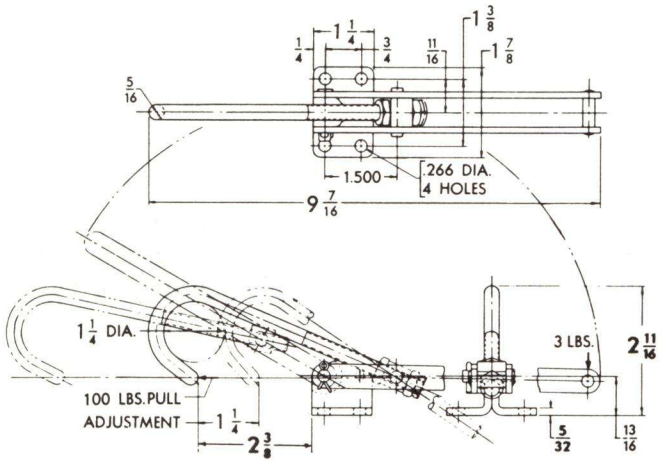
SAMPLE APPLICATION
WITH FORCE INSIDE OF HOOK



RECOMMENDED LOAD

200 Lbs. Pull

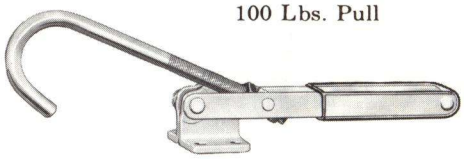
Travel 2.75 Inches

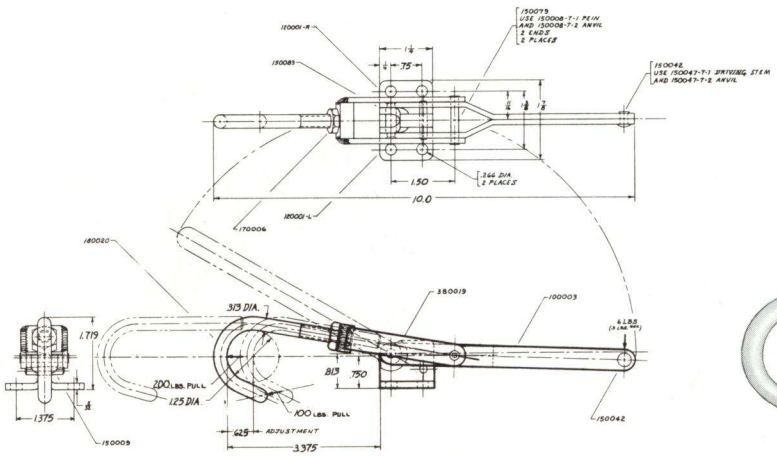


SAMPLE APPLICATION
WITH FORCE AT END OF HOOK

RECOMMENDED LOAD

100 Lbs. Pull

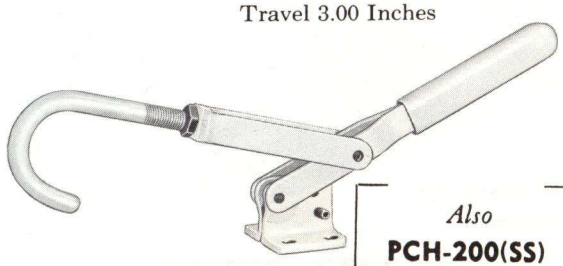




MODEL PCH-200

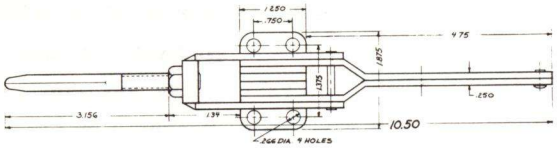
RECOMMENDED LOAD

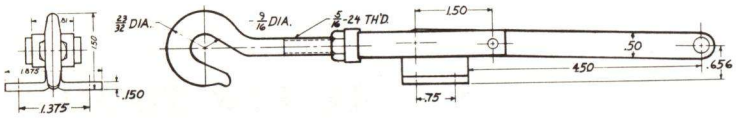
200 Lbs. at Hook Center
100 Lbs. at Hook End
Weight 0.75 Lbs.
Travel 3.00 Inches



Also
PCH-200(SS)

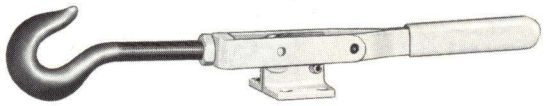
MODEL PCH-1200



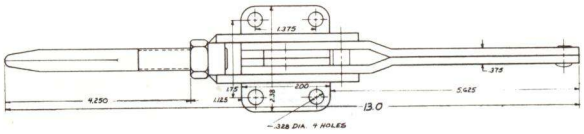


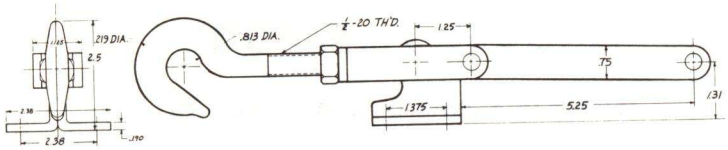
RECOMMENDED LOAD

At Hook Center 1200 Lbs.
At Hook End 600 Lbs.
Weight 0.85
Travel 3.00 Inches



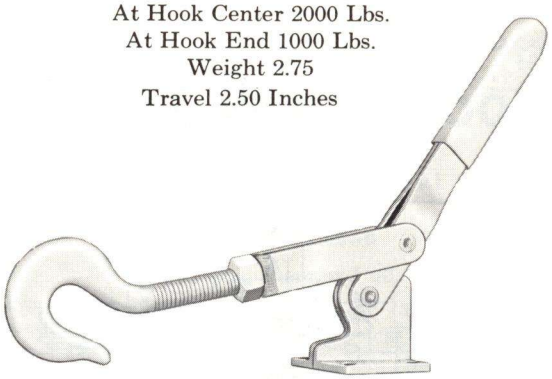
MODEL PCH-2000





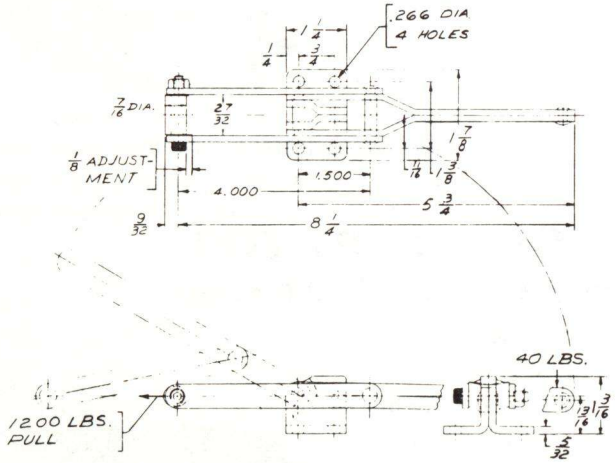
RECOMMENDED LOAD

At Hook Center 2000 Lbs.
At Hook End 1000 Lbs.
Weight 2.75
Travel 2.50 Inches



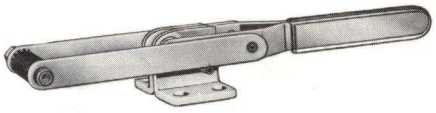
MODEL PC-1200

TEMPLATE & PHOTO ¼ ACTUAL SIZE



RECOMMENDED LOAD

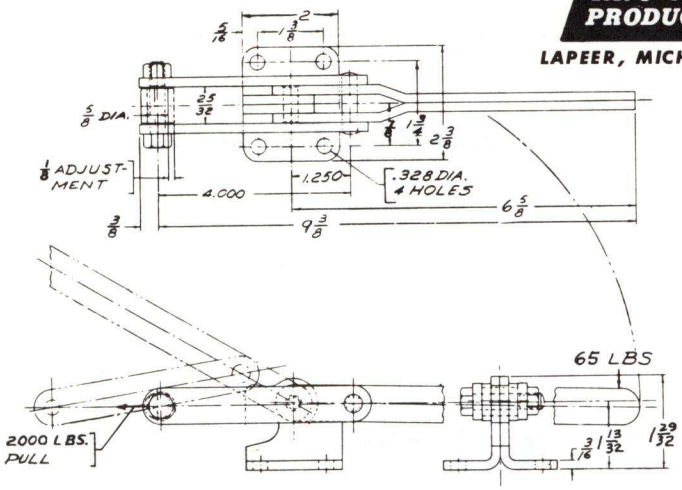
1200 Lbs. Pull
Weight, 0.58 Lb.
Travel 3.00 Inches



Also
PC-1200(SS)
From Stainless Steel

KNU-VISE PRODUCTS

LAPEER, MICHIGAN



MODEL PC-2000

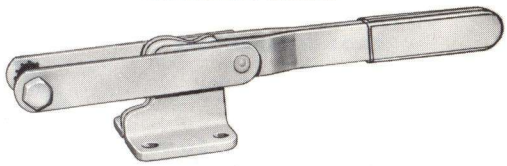
TEMPLATE & PHOTO ¼ ACTUAL SIZE

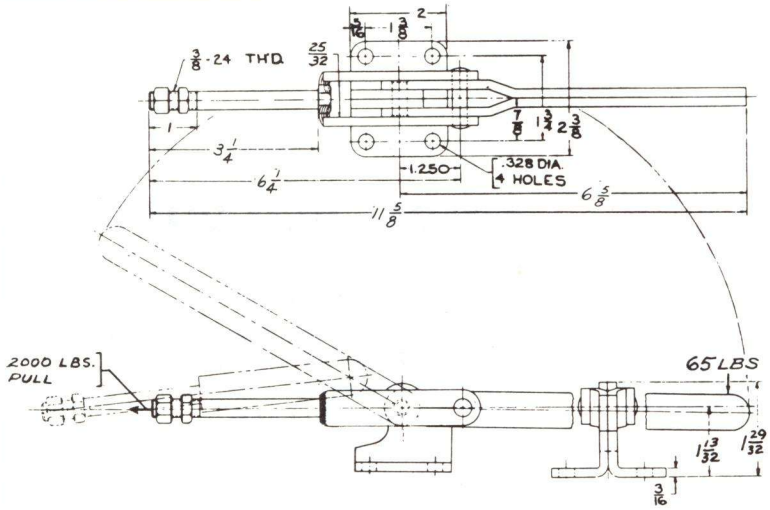
RECOMMENDED LOAD

2000 Lbs. Pull

Weight, 1.48 Lbs.

Travel 2.50 Inches





MODEL PCR-2000

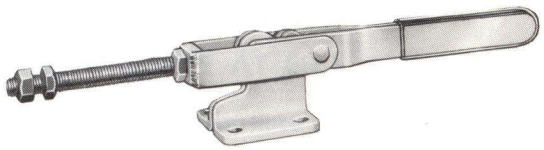
TEMPLATE & PHOTO ¼ ACTUAL SIZE

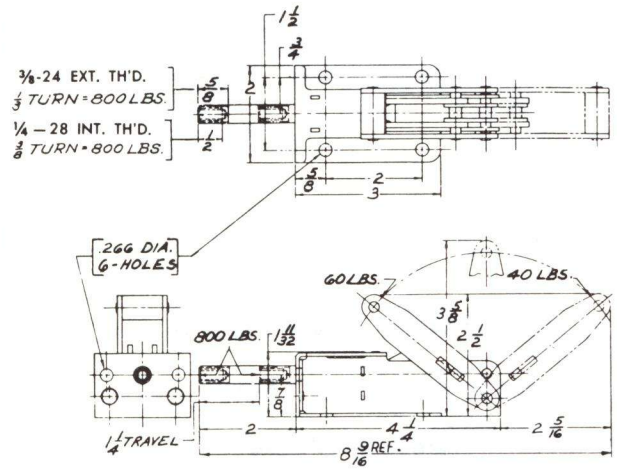
RECOMMENDED LOAD

2000 Lbs. Pull

Weight, 1.50 Lbs.

Travel 2.50 Inches





MODEL P&P-800

TEMPLATE & PHOTO ¼ ACTUAL SIZE

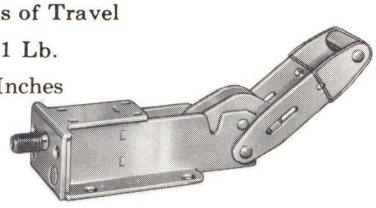
RECOMMENDED LOAD

800 Lbs. During Entire Travel

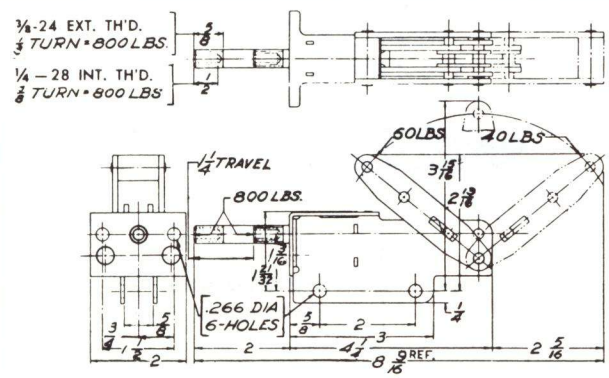
1200 Lbs. at Ends of Travel

Weight, 0.81 Lb.

Travel 1.25 Inches



Clamps with only INTERNAL THREADS in plunger—Add suffix -IT.
Clamps with only EXTERNAL THREADS on plunger—Add suffix -ET.



MODEL P&PS-800

TEMPLATE & PHOTO ¼ ACTUAL SIZE

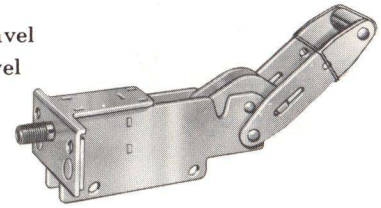
RECOMMENDED LOAD

800 Lbs. During Entire Travel

1200 Lbs. at Ends of Travel

Weight, 0.81 Lb.

Travel 1.25 Inches



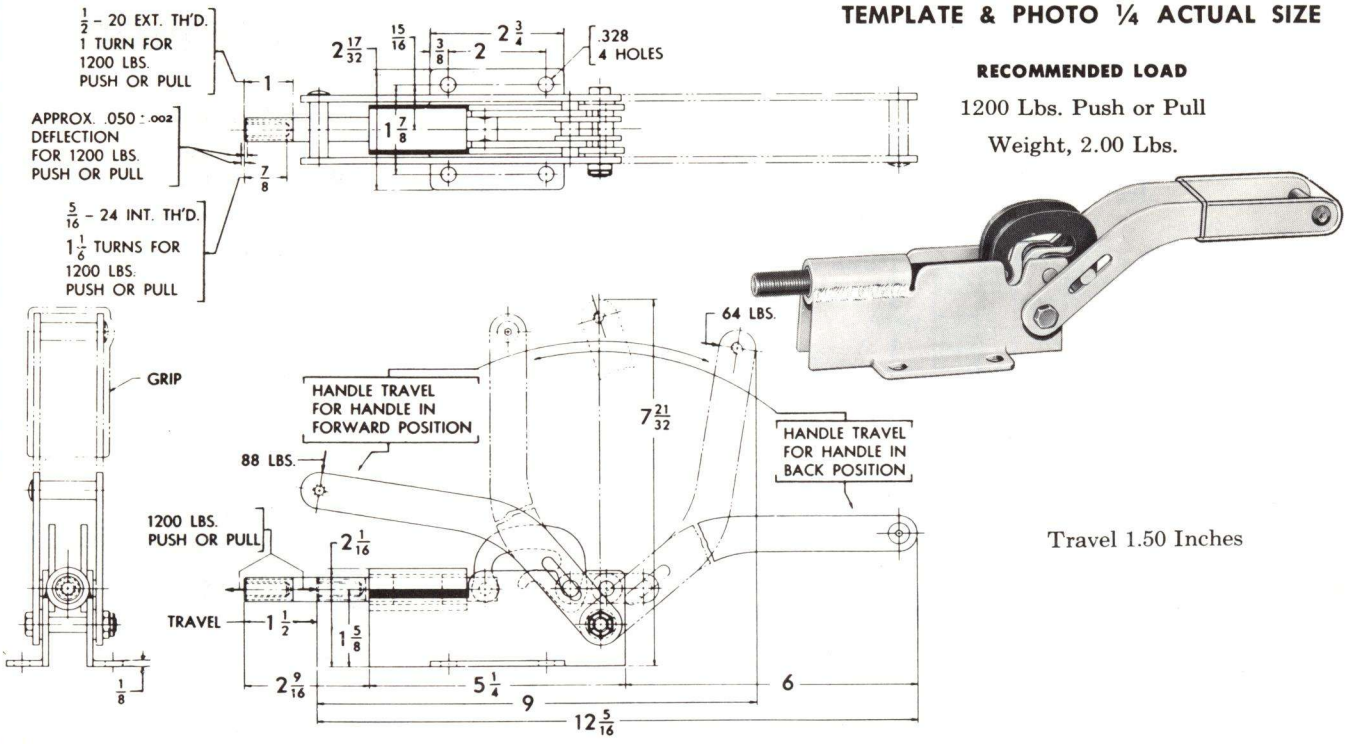
KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER

MODEL P&P-1200

TEMPLATE & PHOTO ¼ ACTUAL SIZE



RECOMMENDED LOAD

1200 Lbs. Push or Pull

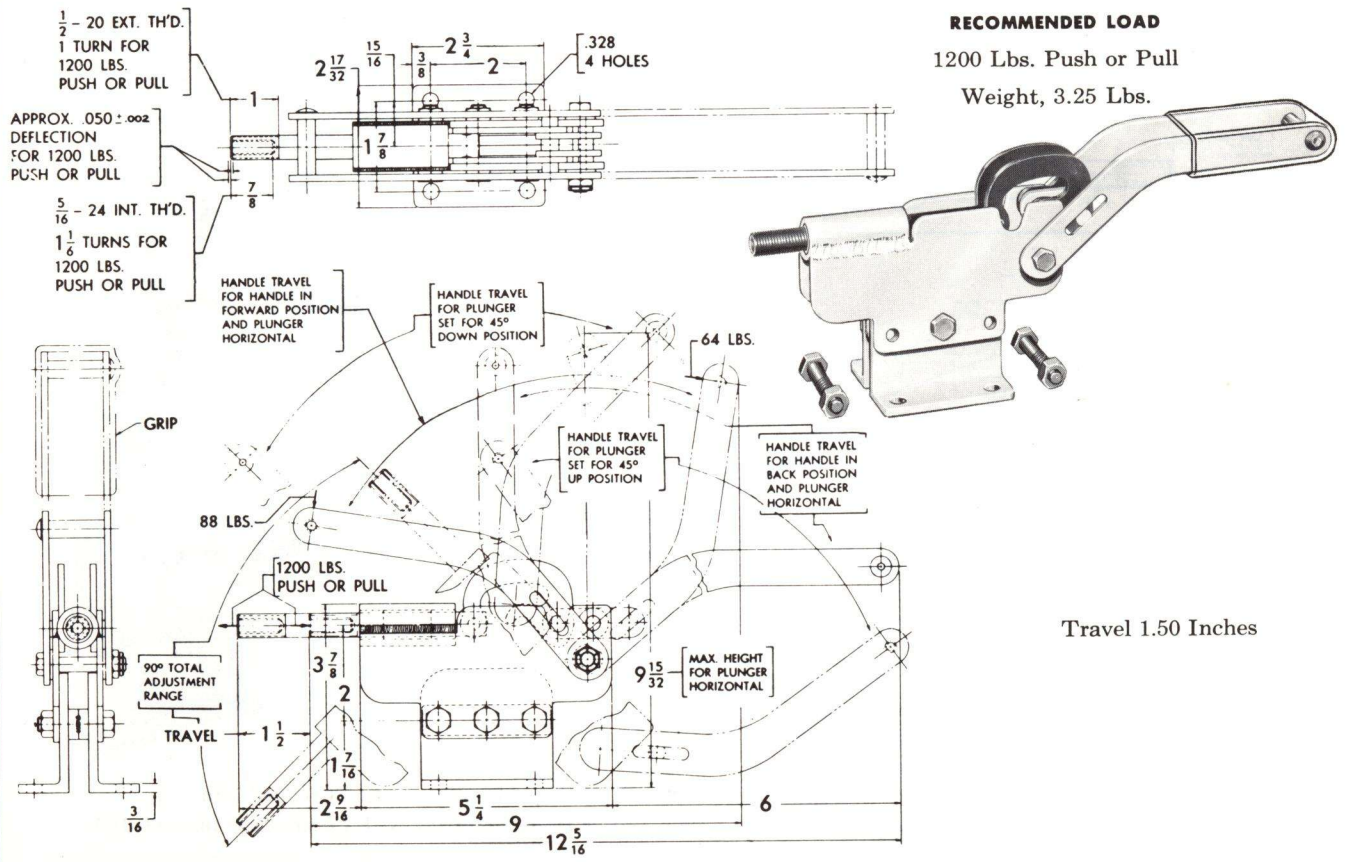
Weight, 2.00 Lbs.

Travel 1.50 Inches

SPECIAL ORDER

MODEL P&PSB-1200

TEMPLATE & PHOTO ¼ ACTUAL SIZE



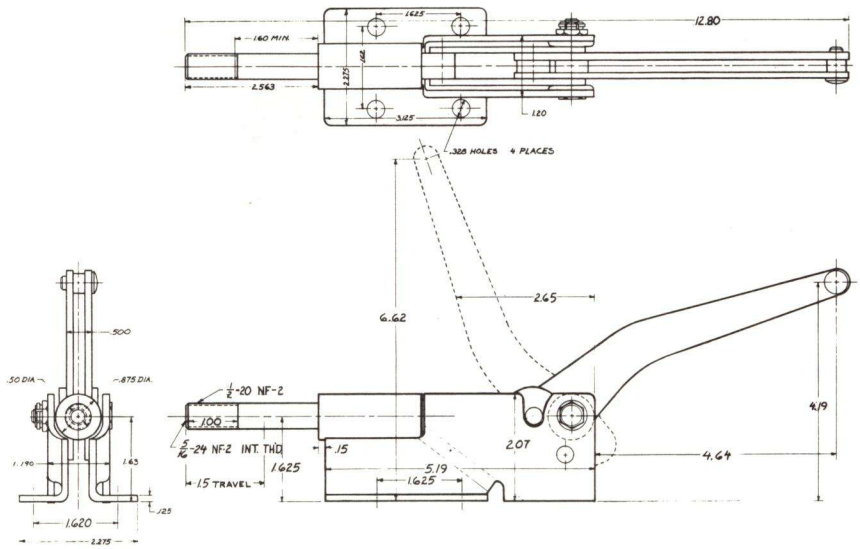
RECOMMENDED LOAD

1200 Lbs. Push or Pull

Weight, 3.25 Lbs.

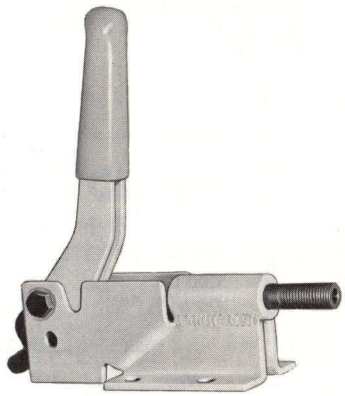
Travel 1.50 Inches

MODEL PH-1600
MODEL PL-1600



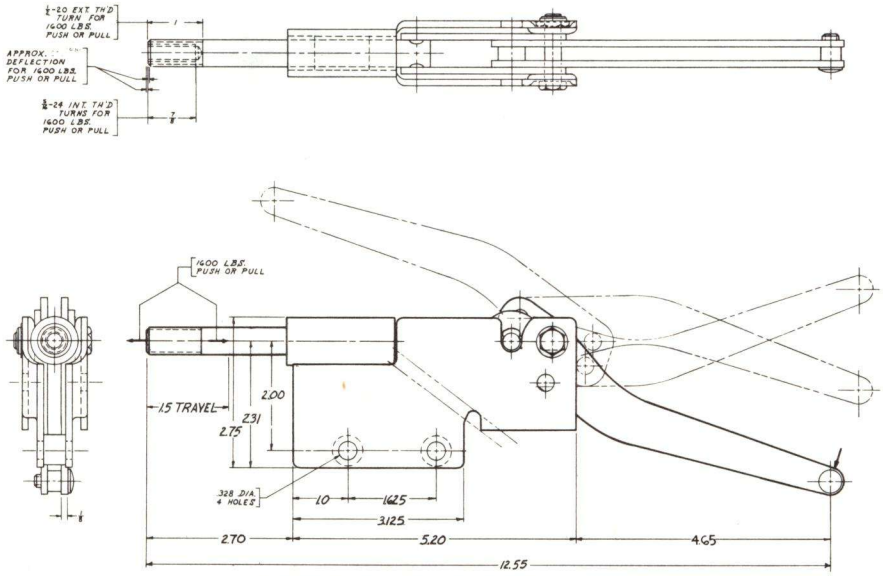
RECOMMENDED LOAD

1600 Lbs. Push
Weight 2.00 Lbs.
Travel 1.50 Inches



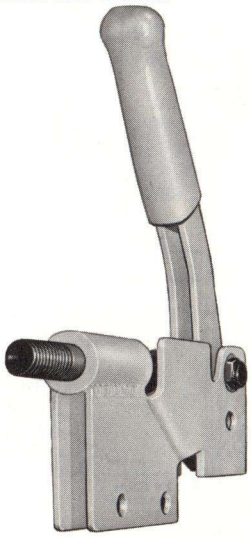
PH = Means Plunger Locks in Push
PL = Means Plunger Locks in Pull
PH & PL = Means Plunger Locks in Push & in Pull

MODEL PH & PL-1601



RECOMMENDED LOAD

1600 Lbs. Push & in Pull
Weight 2.00 Lbs.
Travel 1.50 Inches

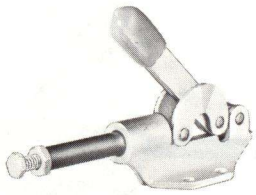


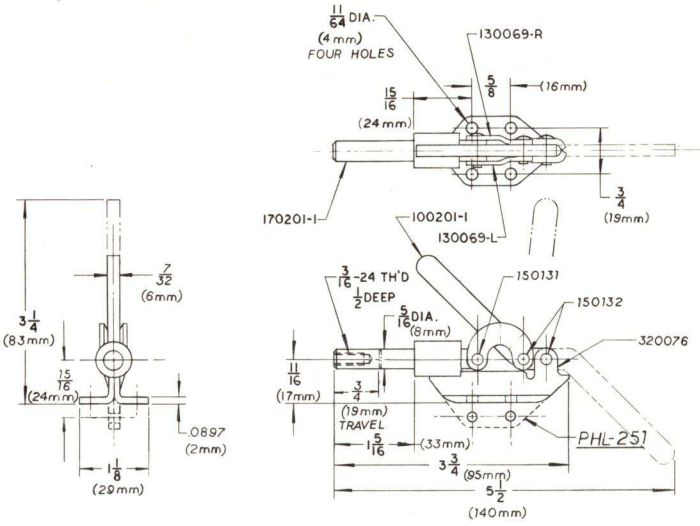
MOUNTING AVAILABLE

1600 = Means Flat Base.
1601 = Means Side Mount.
1602 = Swivel Base.
1603 = For Hole Mounting with Threaded Nut.
1604 = For Hole Mounting with Flange (see page 99-100)

PHL-250

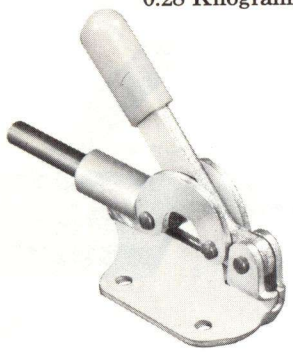
RECOMMENDED LOAD
250 Lbs. in Push & in Pull
Travel ¾ Inch
19 Millimeters
Weight 6 oz.
0.17 Kilogramme

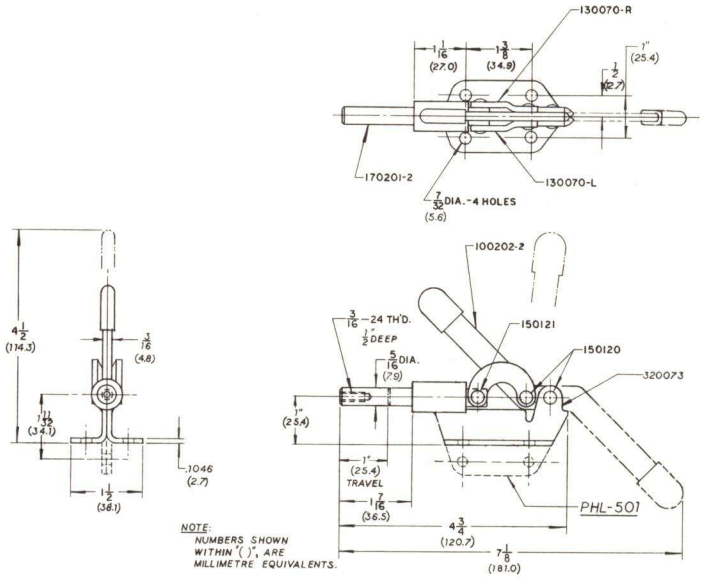




PHL-500

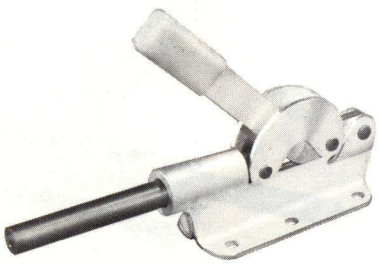
RECOMMENDED LOAD
500 Lbs. in Push & in Pull
Travel 1 Inch
25.4 Millimeters
Weight 10 oz.
0.28 Kilogramme

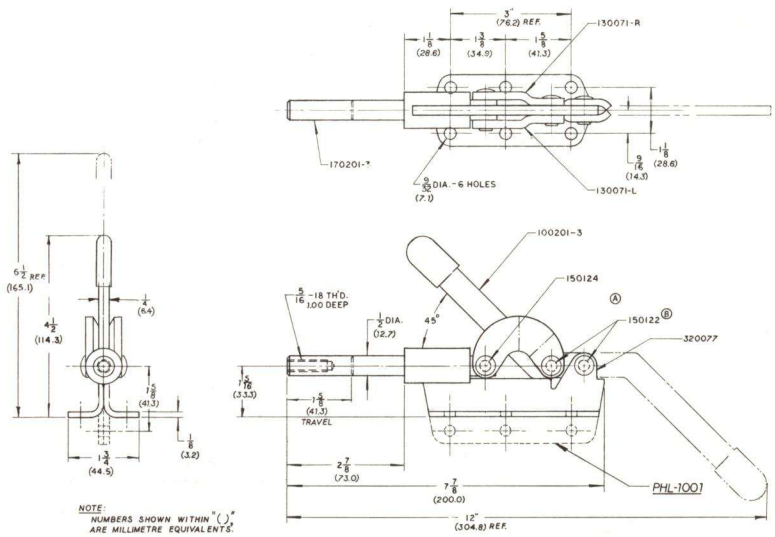




PHL-1000

RECOMMENDED LOAD
1000 Lbs. in Push & in Pull
Travel 1⅝ Inches
41 Millimeters
Weight 1.87 Lbs.
0.84 Kilogramme

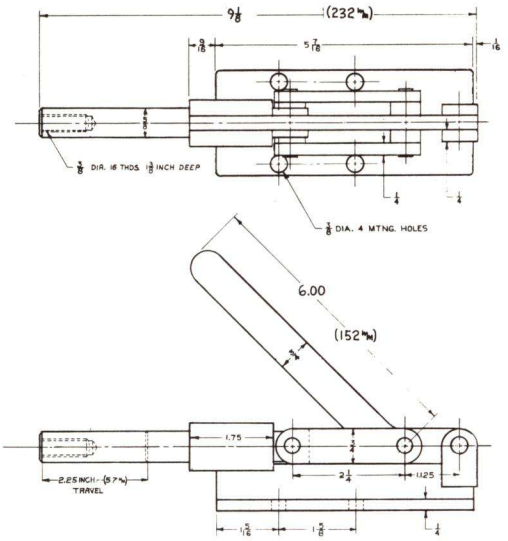




KNU-VISE PRODUCTS

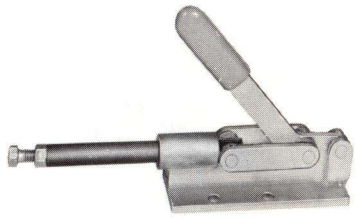
LAPEER, MICHIGAN

PHL-2500

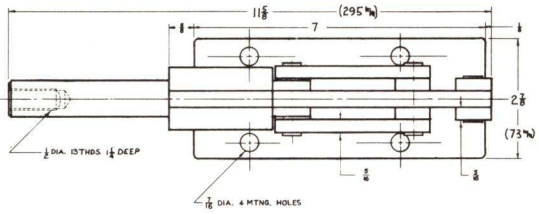


RECOMMENDED LOAD

2000 Lbs. in Push & in Pull
Travel 2¼ Inches
57 Millimeters
Weight 3.00 Lbs.
1.35 Kilogrammes

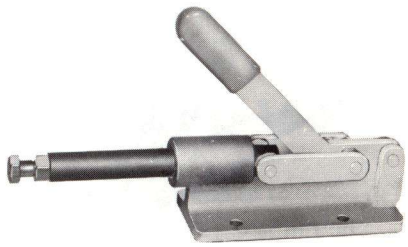


PHL-3500

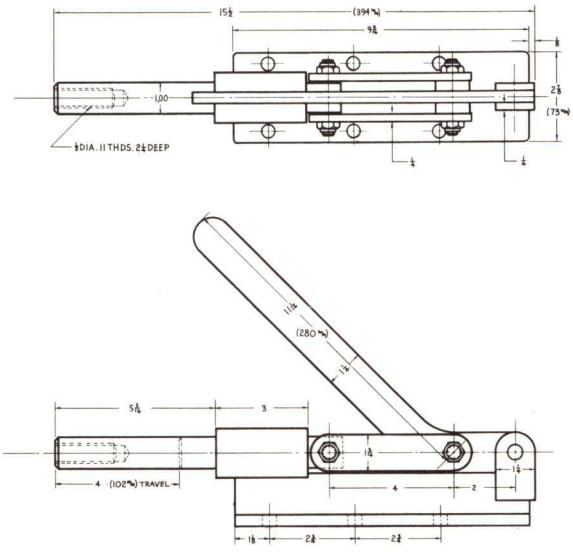


RECOMMENDED LOAD

3000 Lbs. in Push & in Pull
Travel 2⅞ Inches
73 Millimeters
Weight 7.37 Lbs.
3.32 Kilogrammes

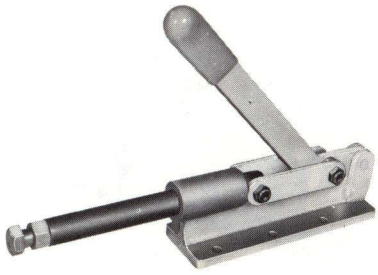


PHL-5000



RECOMMENDED LOAD

4000 Lbs. in Push & in Pull
Travel 4 Inches
102 Millimeters
Weight 11.68 Lbs.
5.26 Kilogrammes

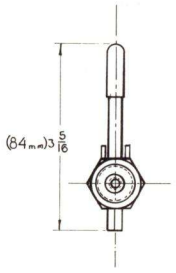


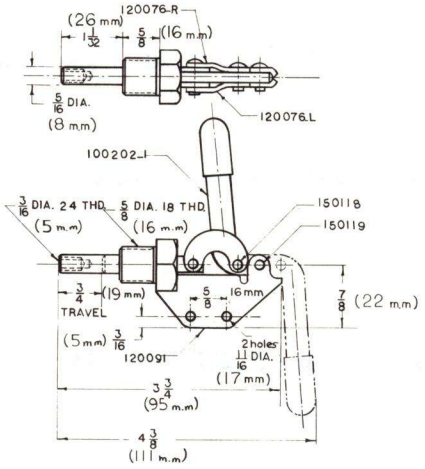
All PHLˢ Lock in Push & in Pull

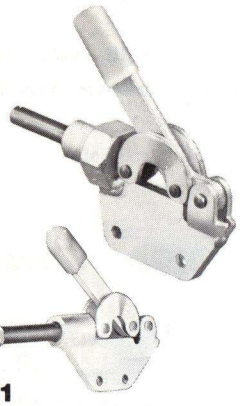
PHL-253

RECOMMENDED LOAD
250 Lbs. in Push & in Pull
Travel ¾ Inch
19 Millimeters
Weight 5 oz.
.14 Kilogramme

SPECIAL ORDER





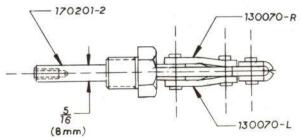


PHL-251

PHL-503

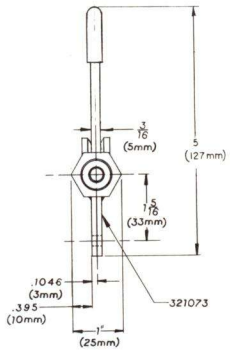
RECOMMENDED LOAD
500 Lbs. in Push & in Pull
Travel 1 Inch
25.4 Millimeteres
Weight 6 oz.
.170 Kilogramme

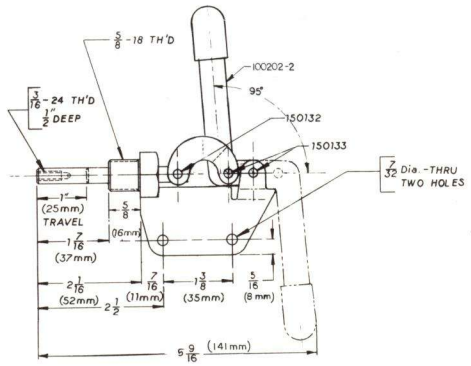
SPECIAL ORDER





PHL-501

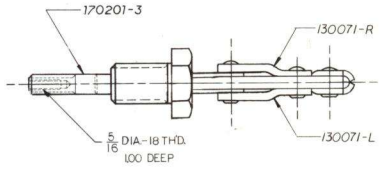




PHL-1003

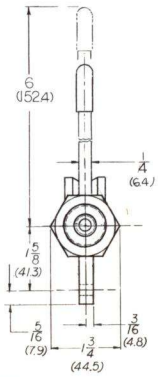
RECOMMENDED LOAD
1000 Lbs. in Push & in Pull
Travel 1⅝ Inches
41 Millimeters
Weight 1.62 lbs.
.73 Kilogramme

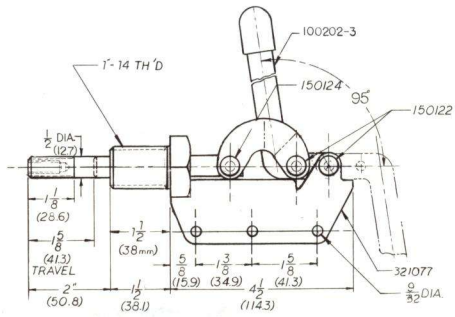
SPECIAL ORDER





PHL-1001





NOTE:
NUMBERS STATED WITHIN "()" ARE MILLIMETRE EQUIVALENTS.

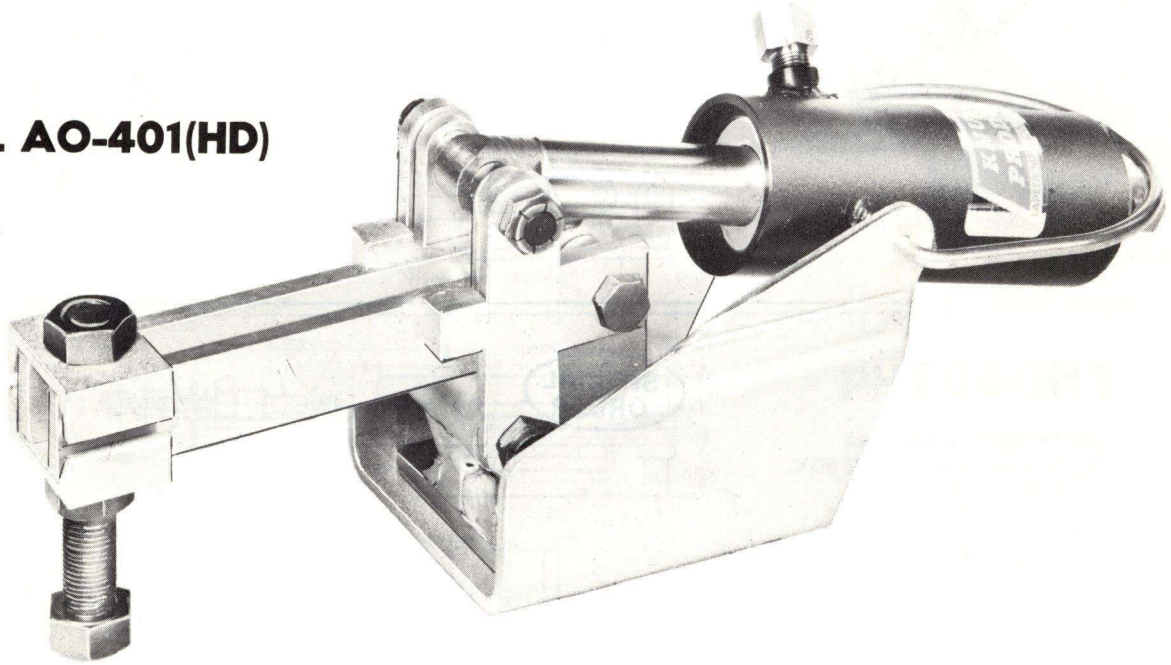
All PHLs Lock in Push & in Pull

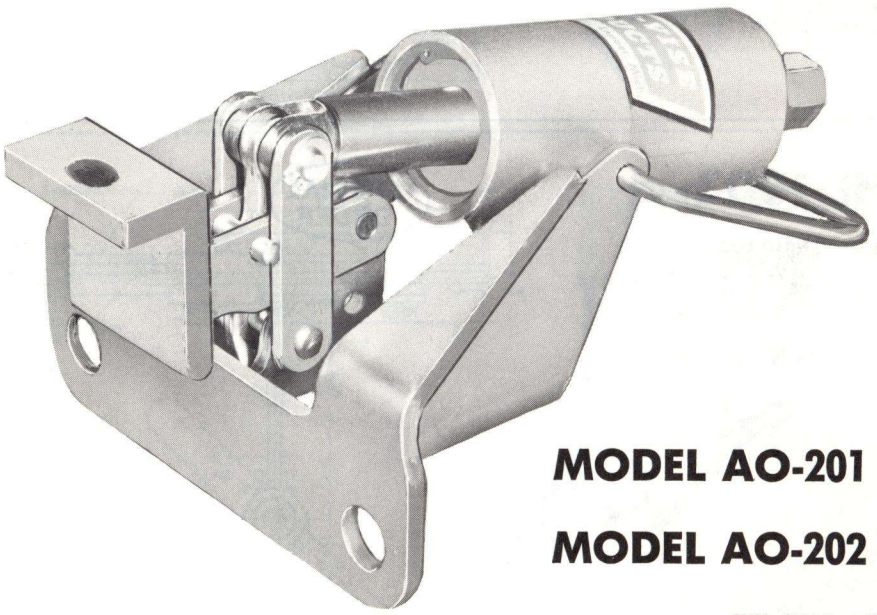
AIR-OPERATED (OR OIL)

- - - - - - For Automation

CLAMPING FORCE - 100 - 200- 400 - 800 - 1200 - 2000 lbs.

MODEL AO-401(HD)





MODEL AO-201 (Special)

MODEL AO-202 (Special)

FULL, HALF, and QUARTER SIZE TEMPLATES are available.

These models are DOUBLE-ACTING AND WILL NOT RELEASE WORK should the air or oil pressure fail. Model AO-100 (SA) & Model AODT-100 (SA), having a spring return, are not double-acting.

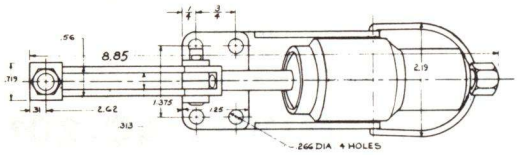
The clamps always operate SMOOTHLY.

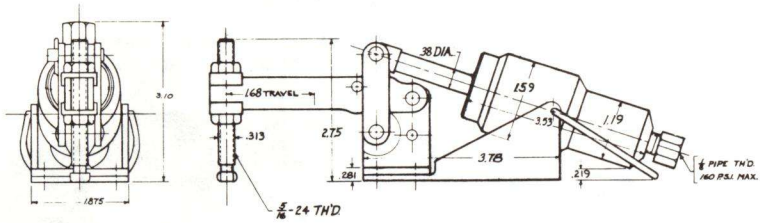
When operated by AIR, the restrictor fittings furnished control the speed of the opening and closing of the clamp, and provide a cushioning effect that ELIMINATES HAMMERLIKE ACTION.

When operated by OIL, the hole in each restrictor fitting must be enlarged to the same diameter as the hole in the cylinder end cap, or the fittings must be replaced by adapters with such holes, to obtain the same speed of opening and closing, as when operated by air.

REGULAR SHOP LINE AIR PRESSURE OF 80-85 p.s.i. is required, or the EQUIVALENT OIL PRESSURE.

All models with seals for temperatures up to 500°F available at slight extra cost.





MODEL AO-100(SA)

Replaces old Model AO-80

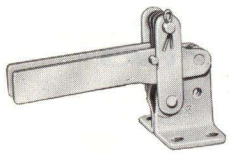
Single Acting Spring Return Clamp

RECOMMENDED LOAD

At End of Toggle Bar 80 Lbs.

15/16" in Front of Base 150 Lbs.

Weight 2.00 Lbs.

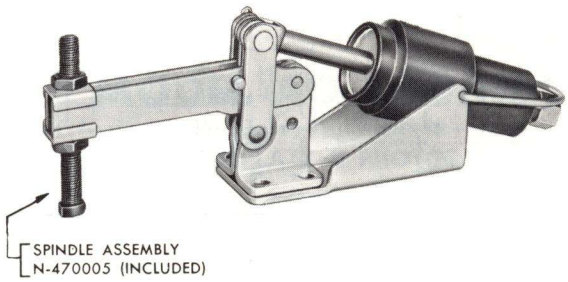


AO-100 (CP) (SA)

Weight, 0.50 Lb.

FOR ANGULAR CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE





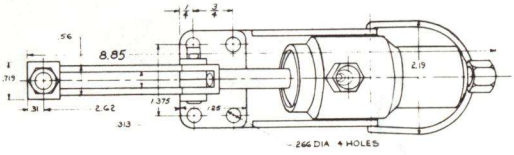
MODEL AO-100

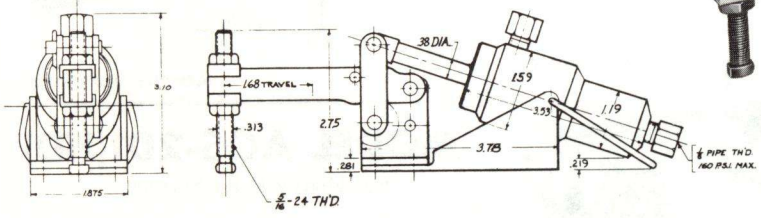
RECOMMENDED LOAD

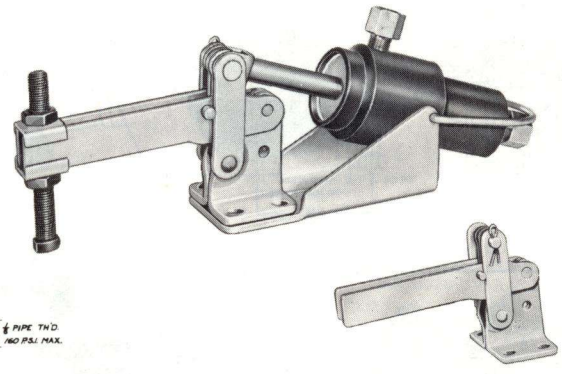
At End of Toggle Bar 100 Lbs.

15/16" in Front of Base 185 Lbs.

Weight 2.00 Lbs.





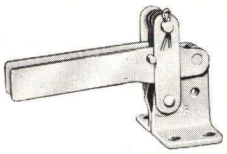


AO-100(CP)

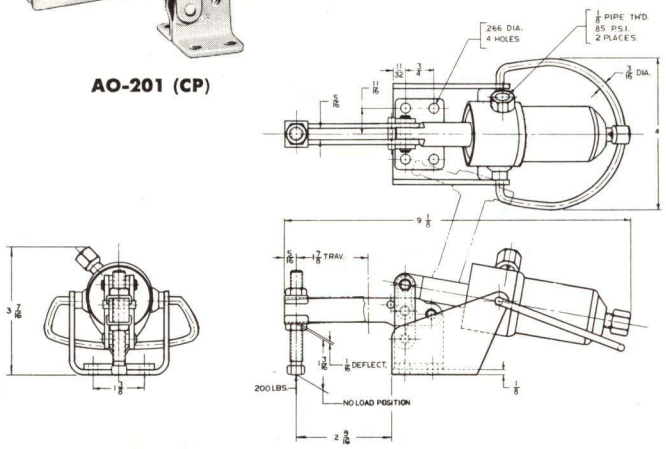
Weight, 0.50 Lb.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN



AO-201 (CP)

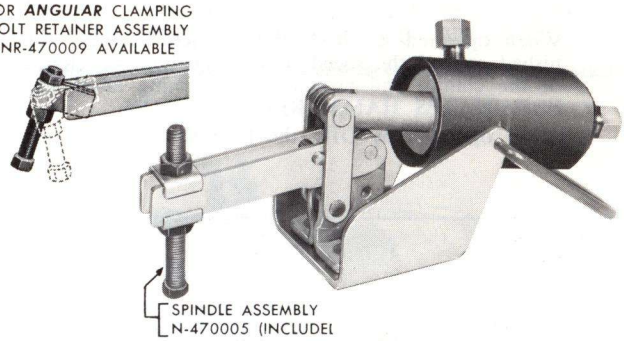


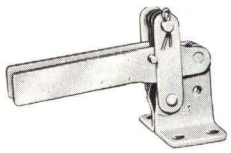
MODEL AO-201

RECOMMENDED LOAD

At End of Toggle Bar.....200 Lbs.
15/16" in Front of Base.....380 Lbs.

FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE



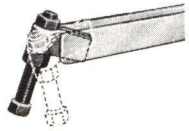


AO-201 (CP)

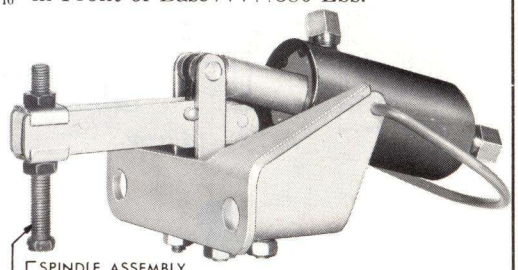
MODEL AO-201 (FM)

RECOMMENDED LOAD

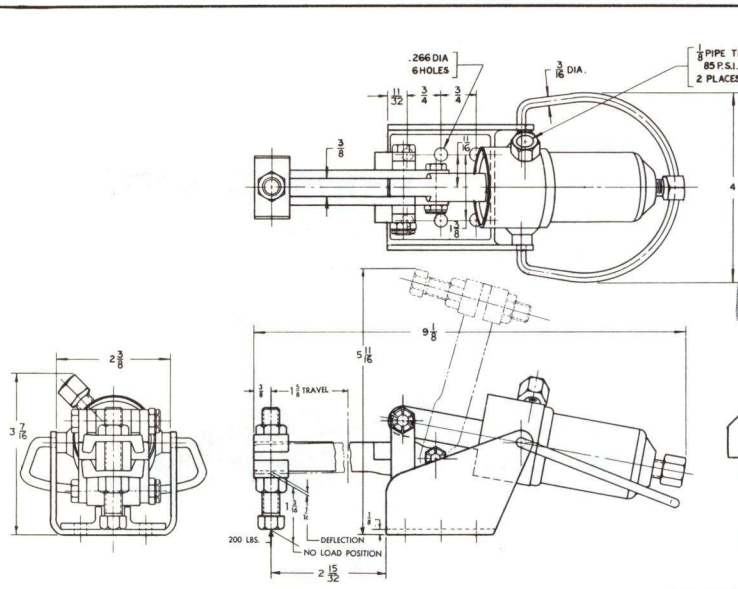
At End of Toggle Bar.....200 Lbs.
15/16" in Front of Base.....380 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE





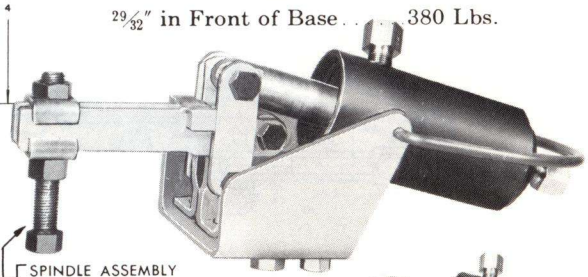


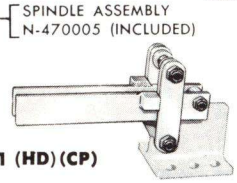
MODEL AO-201(HD)

For Heavy Duty Service

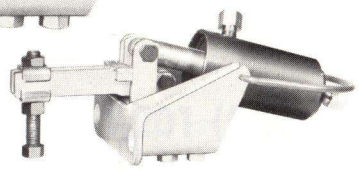
RECOMMENDED LOAD

At End of Toggle Bar.....200 Lbs.
29/32" in Front of Base.....380 Lbs.

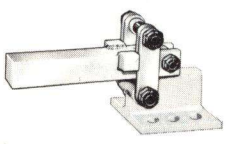




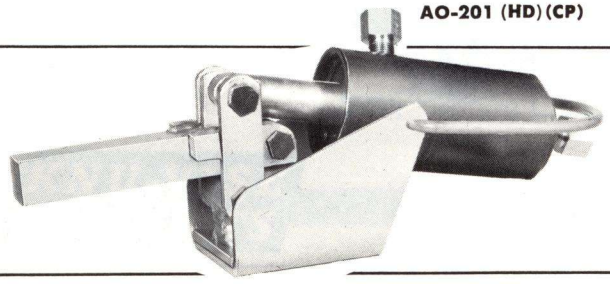
AO-201 (HD) (CP)



AO-201 (HD) (FM)



AOS-201 (HD) (CP)



MODEL AOS-201(HD)

For Heavy Duty Service

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

MODEL AO-400

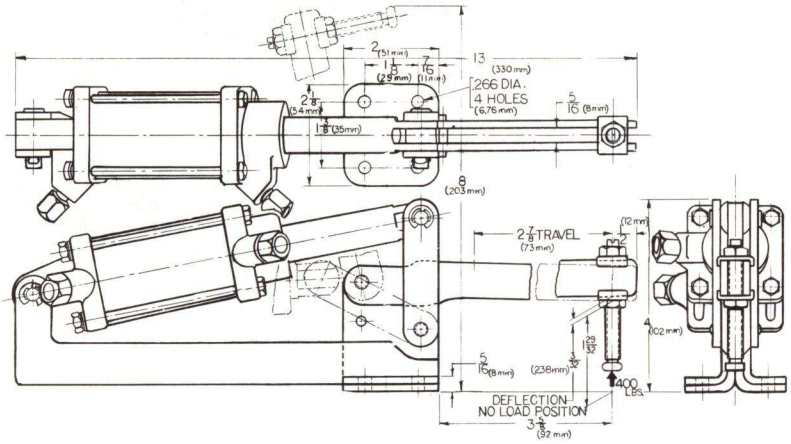
TEMPLATE & PHOTOS

¼ ACTUAL SIZE

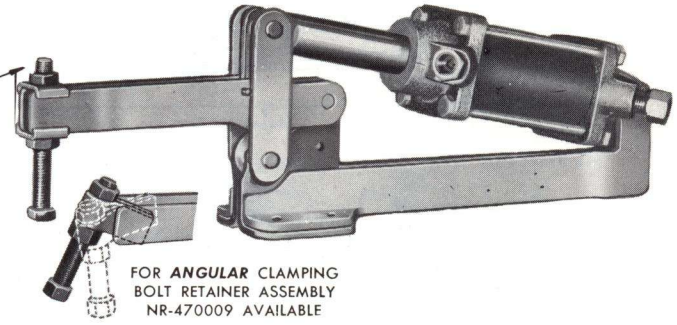
RECOMMENDED LOAD

Near End of Toggle Bar . . . 400 Lbs.
1⅛" in Front of Base 760 Lbs.

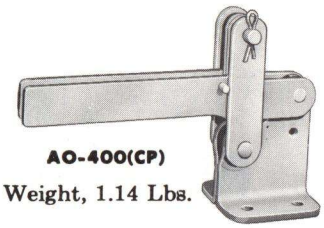
Weight, 4.15 Lbs.



SPINDLE ASSEMBLY
W-470005 (INCLUDED)



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE



AO-400(CP)

Weight, 1.14 Lbs.

MODEL AO-400(HD)

For Heavy Duty Service

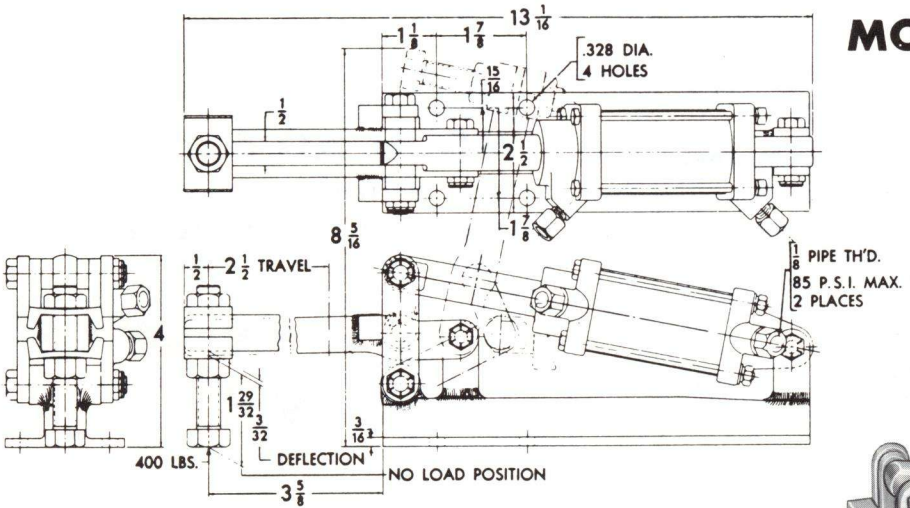
TEMPLATE & PHOTOS

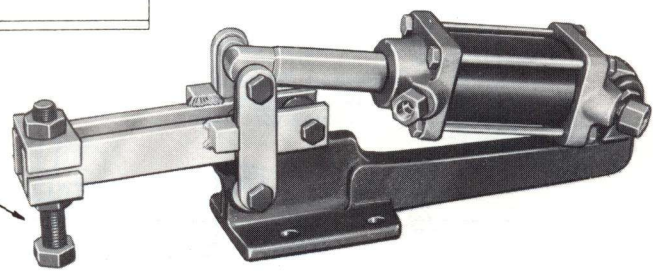
¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar. 400 Lbs.
1⅛" in Front of Base 760 Lbs.

Weight, 6.40 Lbs.



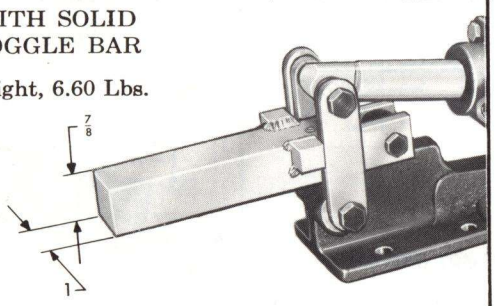


SPINDLE ASSEMBLY
470072 (INCLUDED)

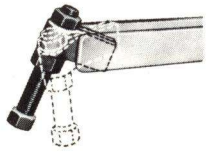
MODEL AOS-400(HD)

WITH SOLID
TOGGLE BAR

Weight, 6.60 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
R-470078 AVAILABLE



KNU-VISE PRODUCTS

LAPEER, MICHIGAN

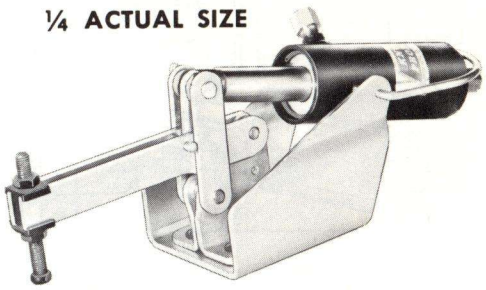
MODEL AO-401

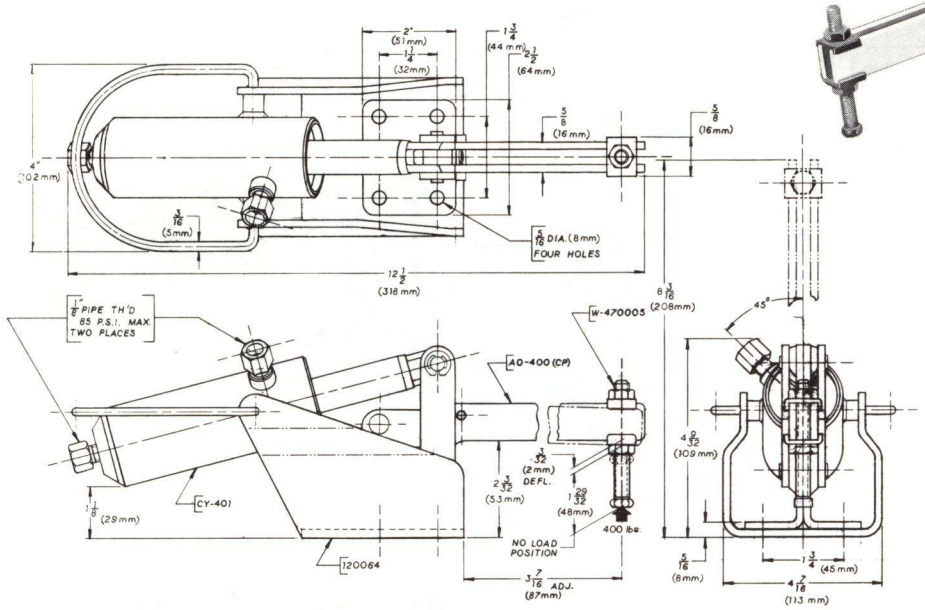
RECOMMENDED LOAD

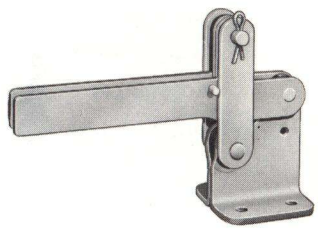
Near End of Toggle Bar . . . 400 Lbs.
1⅛" in Front of Base 760 Lbs.

TEMPLATE

¼ ACTUAL SIZE







AO-401 (CP)

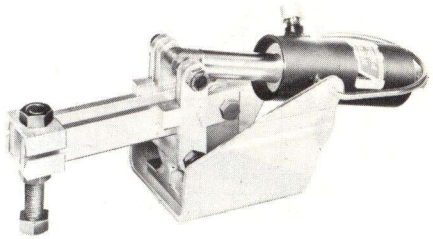
MODEL AO-401 (HD)

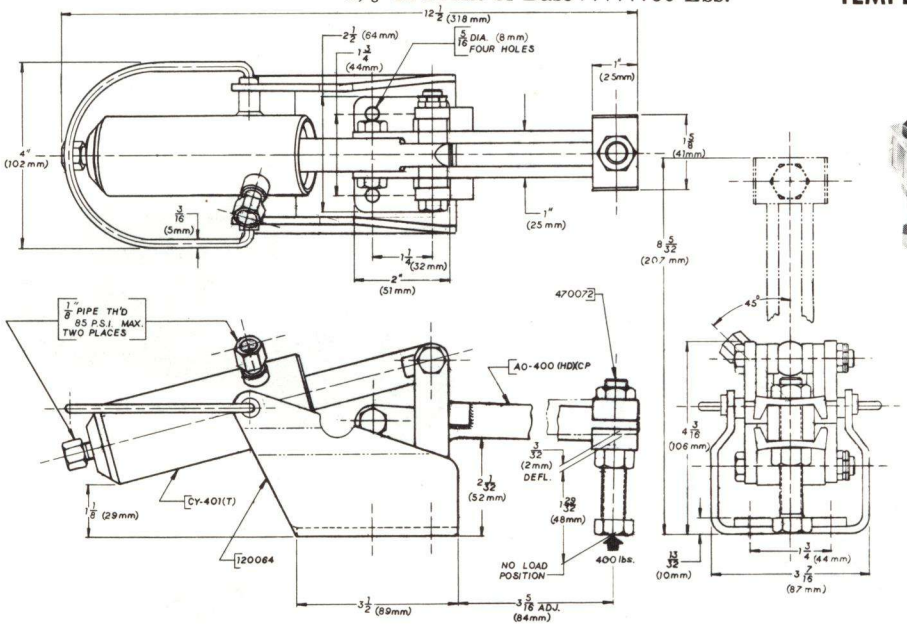
For Heavy Duty Service

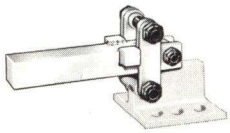
RECOMMENDED LOAD

At End of Toggle Bar. 400 Lbs.
1⅛" in Front of Base 760 Lbs.

TEMPLATE **¼ ACTUAL SIZE**





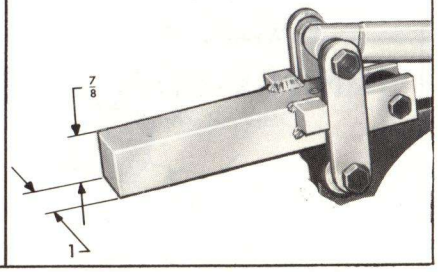


AOS-401 (HD)(CP)

MODEL AOS-401(HD)

WITH SOLID TOGGLE BAR

Weight, 6.60 Lbs.

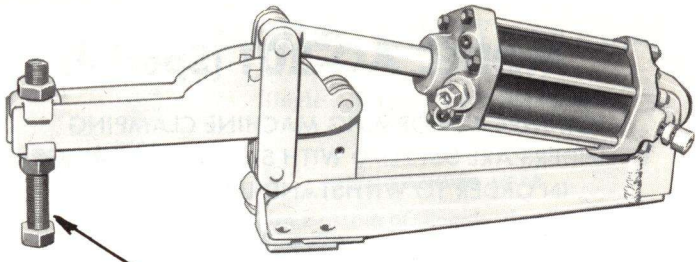


MODEL AO-1200

RECOMMENDED LOAD

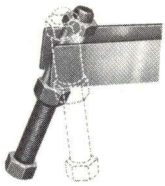
At End of Toggle Bar 1200 Lbs.
2⅝" in Front of Base 2040 Lbs.

Weight, 13.80 Lbs.

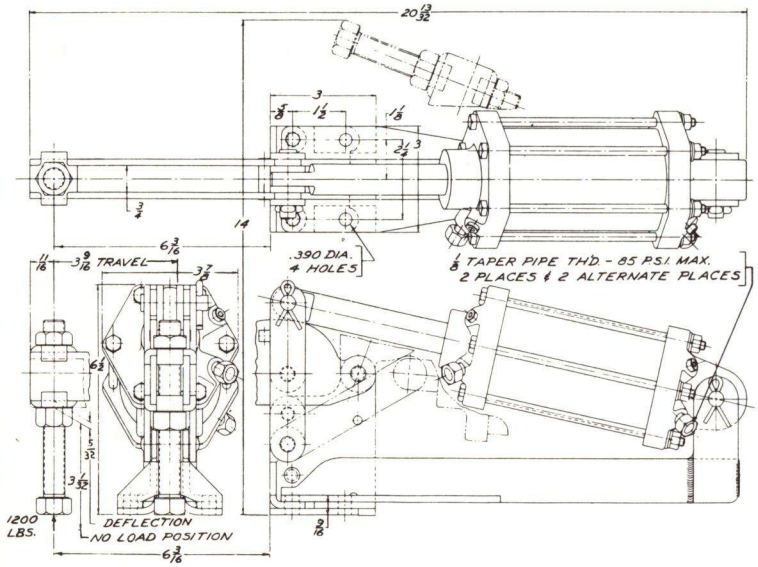


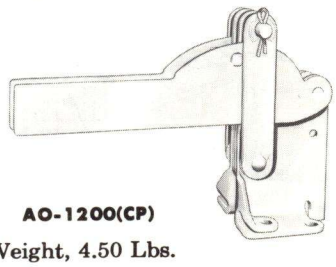
SPINDLE ASSEMBLY
N-470020 (INCLUDED)

SPECIAL ORDER



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
LB-470020 AVAILABLE





AO-1200(CP)

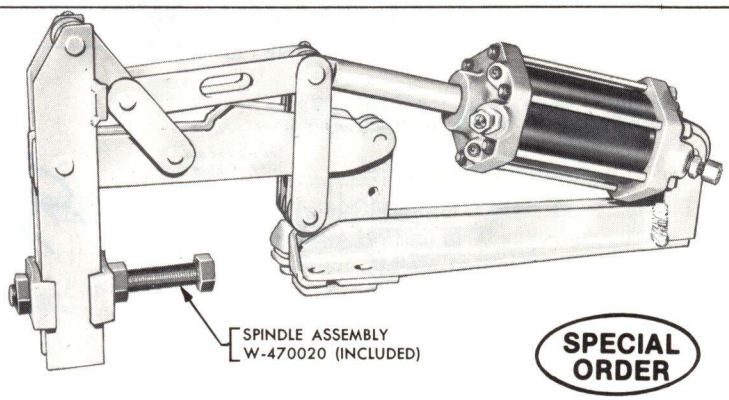
Weight, 4.50 Lbs.

MODEL AODT-1200

RECOMMENDED LOAD

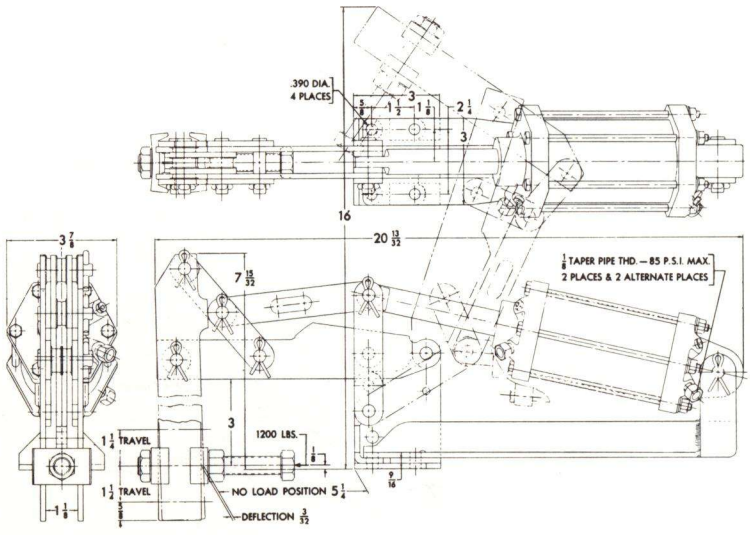
1¾" from Bottom of Toggle Bar . . 1800 Lbs.
3" from Bottom of Toggle Bar 1200 Lbs.
4¼" from Bottom of Toggle Bar . . . 900 Lbs.

Weight, 16.60 Lbs.

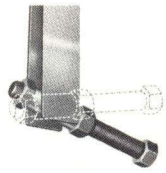


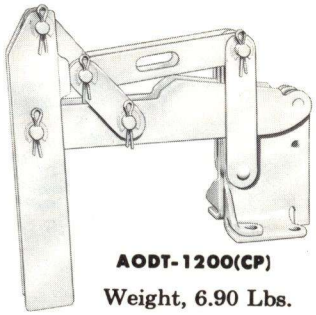
SPINDLE ASSEMBLY
W-470020 (INCLUDED)

SPECIAL ORDER



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
HB-470020 AVAILABLE



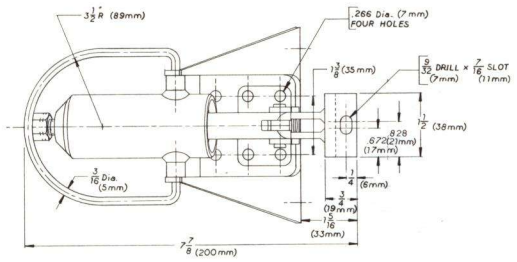


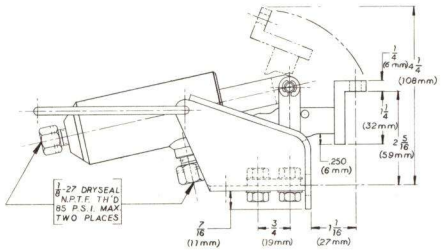
AODT-1200(CP)

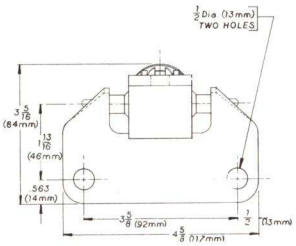
Weight, 6.90 Lbs.

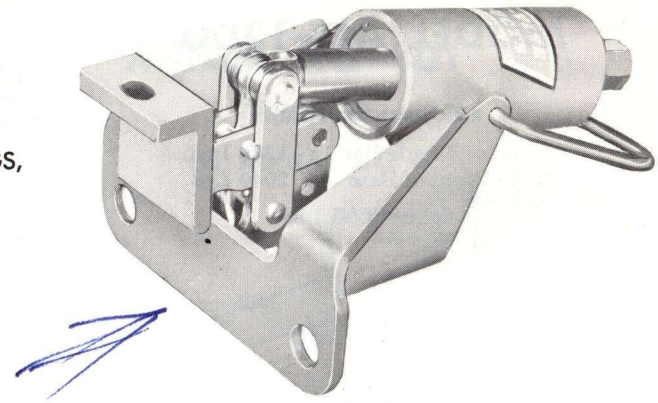
MODEL AO-201 (Special)

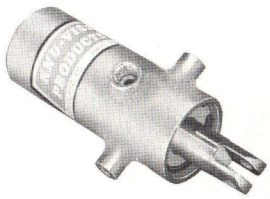
FOR THERMO-FORMING MACHINE CLAMPING CYLINDERS ARE SUPPLIED WITH SILICONE "O" RINGS, IN ORDER TO WITHSTAND UP TO 500°F







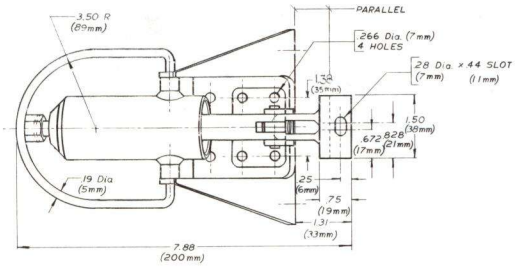


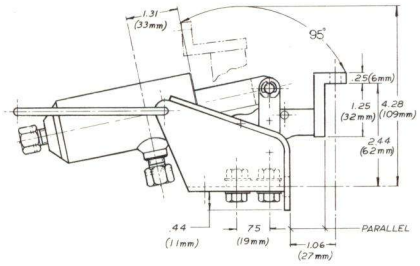


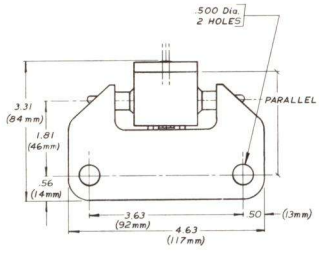
MODEL CY-201 SPECIAL

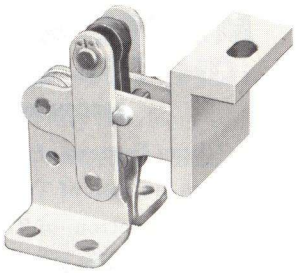
MODEL AO-202 (Special)

WITH SILICONE "O" RINGS



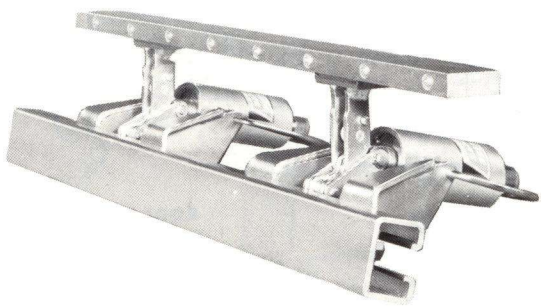


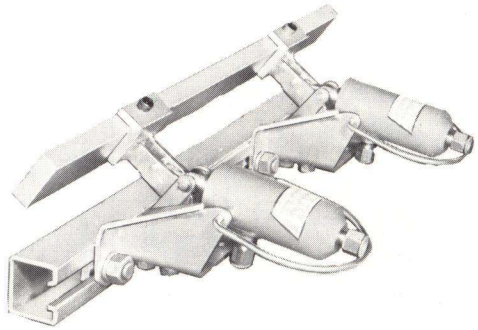




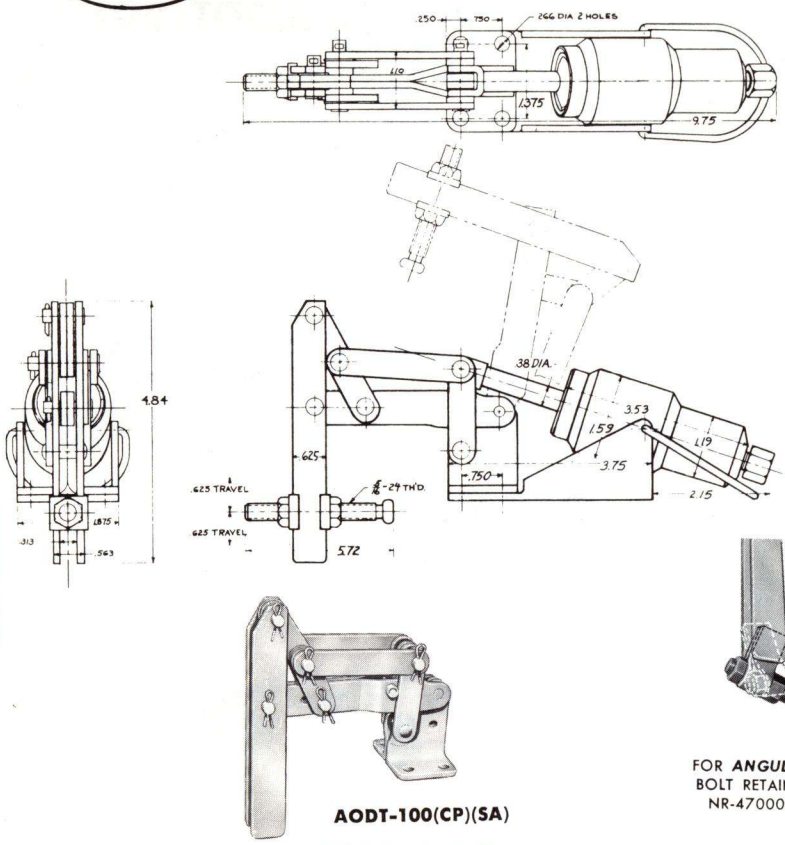
MODEL AO-200 SPECIAL (CP)

AO-201 (SPECIAL) (HD) is Available





SPECIAL ORDER



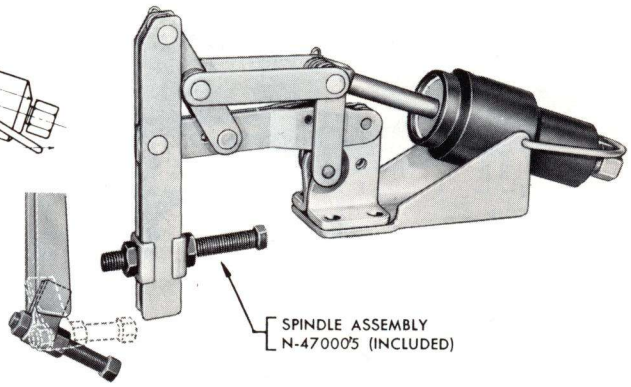
MODEL AODT-100(SA)

Single Acting with Spring Return

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar 120 Lbs.
1 9/16" from Bottom of Toggle Bar 80 Lbs.
2 3/16" from Bottom of Toggle Bar 60 Lbs.

Weight, 2.15 Lbs.

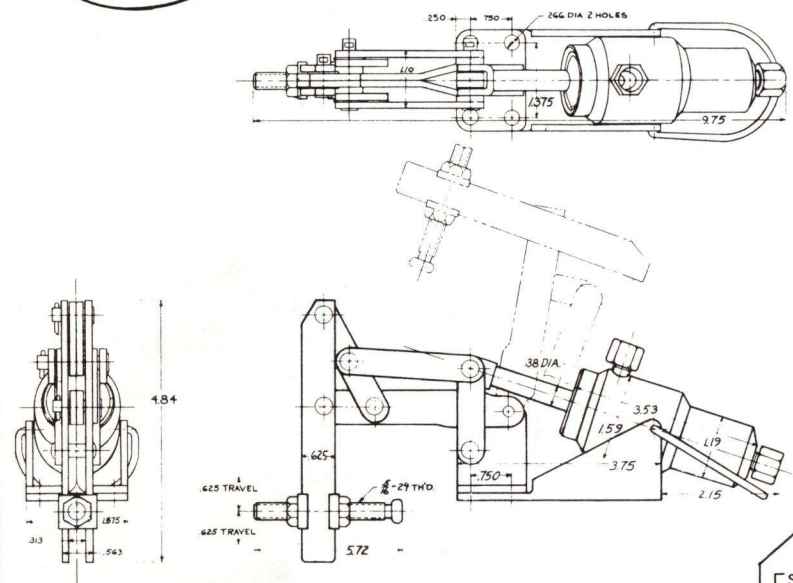


FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

AODT-100(CP)(SA)

Weight, 0.83 Lb.

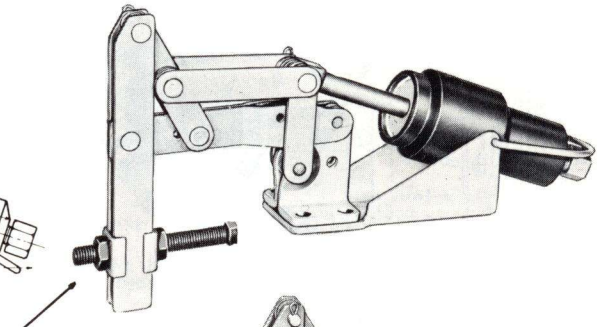
SPECIAL ORDER



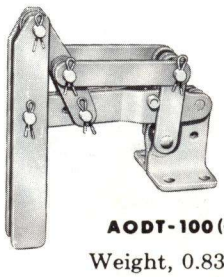
MODEL AODT-100

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar 150 Lbs.
1 9/16" from Bottom of Toggle Bar 100 Lbs.
2 3/16" from Bottom of Toggle Bar 75 Lbs.
Weight 2.40 Lbs.



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE



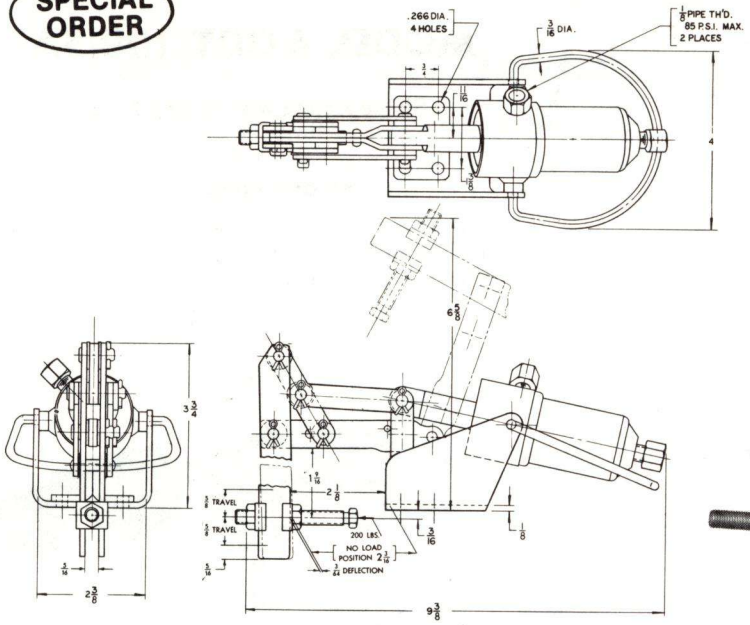
AODT-100 (CP)

Weight, 0.83 Lb.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER

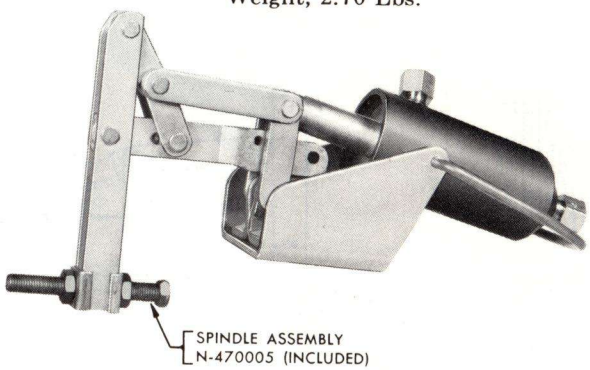


MODEL AODT-201

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar 300 Lbs.
1 9/16" from Bottom of Toggle Bar . . . 200 Lbs.
2 3/16" from Bottom of Toggle Bar 150 Lbs.

Weight, 2.70 Lbs.



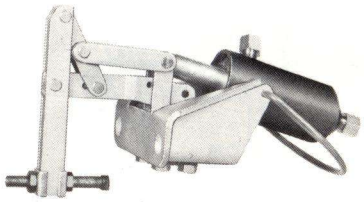


AODT-201 (CP)

Weight, 0.82 Lb.

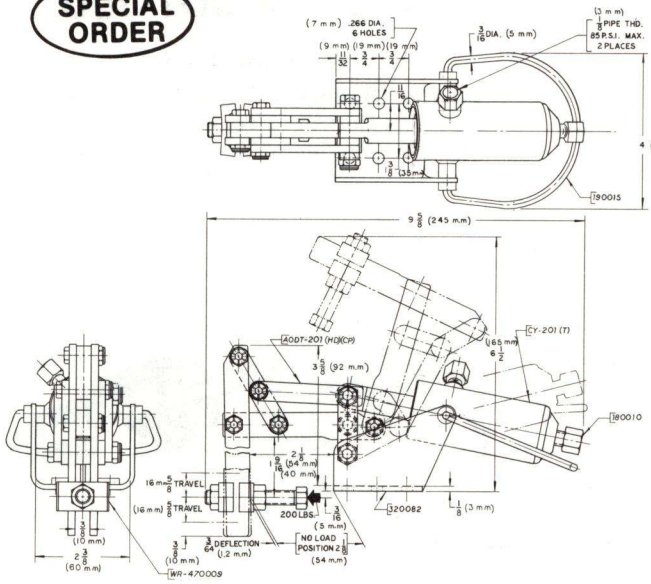


FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
WR-470009 AVAILABLE



AODT-201(FM)

SPECIAL ORDER

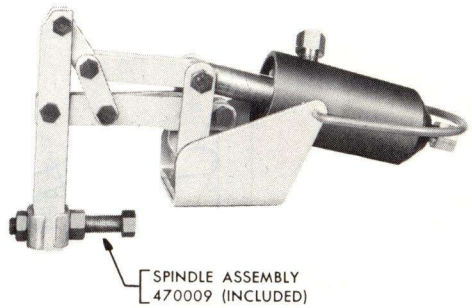


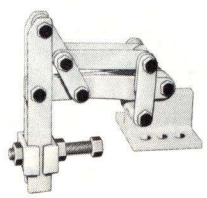
MODEL AODT-201 (HD)

RECOMMENDED LOAD

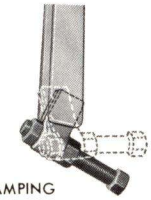
15/16" from Bottom of Toggle Bar . . . 300 Lbs.
1 9/16" from Bottom of Toggle Bar . . . 200 Lbs.
2 3/16" from Bottom of Toggle Bar . . . 150 Lbs.

Weight, 4.05 Lbs.

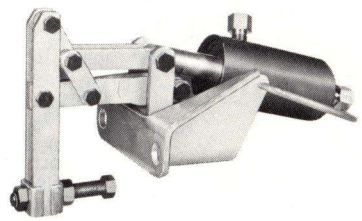




AODT-201(HD)(CP)



FOR *ANGULAR* CLAMPING
BOLT RETAINER ASSEMBLY
NR-470009 AVAILABLE

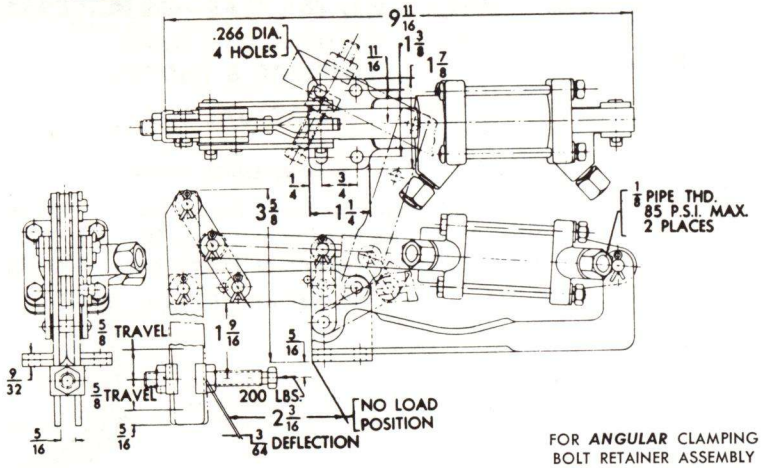


AODT-201(HD)(FM)

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER



MODEL AODT-200

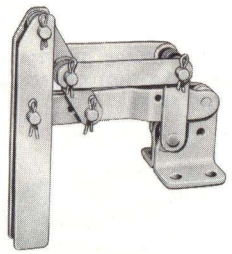
TEMPLATE & PHOTOS

¼ ACTUAL SIZE

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar 300 Lbs.
1 9/16" from Bottom of Toggle Bar . . . 200 Lbs.
2 3/16" from Bottom of Toggle Bar 150 Lbs.

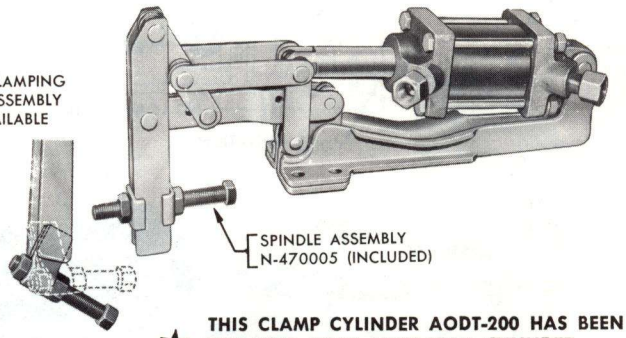
Weight, 2.70 Lbs.



AODT-200(CP)

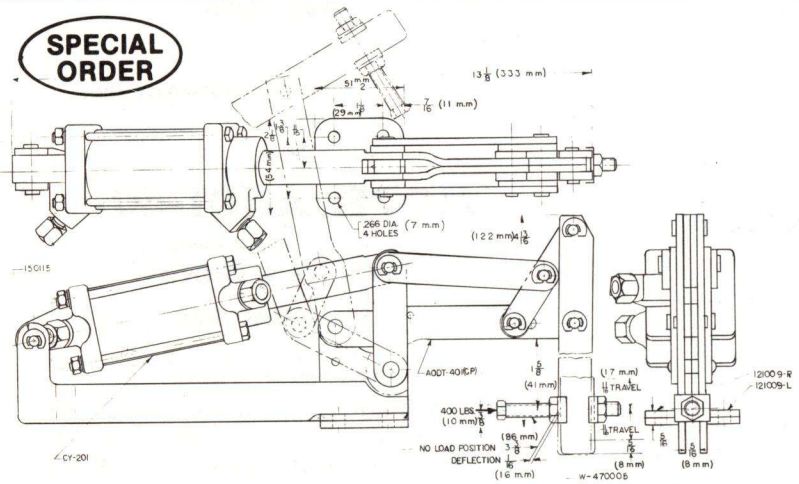
Weight, 0.82 Lb.

FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE



★ **THIS CLAMP CYLINDER AODT-200 HAS BEEN REPLACED WITH AODT-200-1 CYLINDER THE BASE REMAINS THE SAME.**

SPECIAL ORDER



MODEL AODT-400

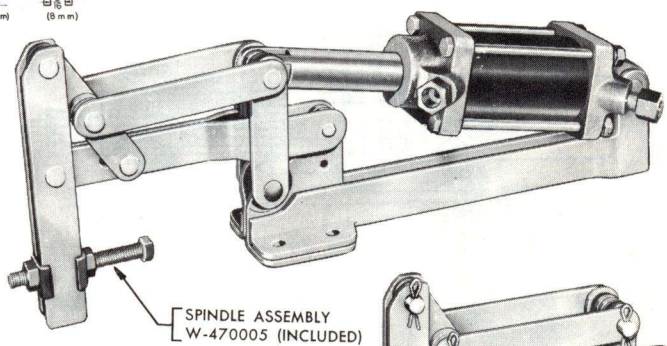
TEMPLATE & PHOTOS

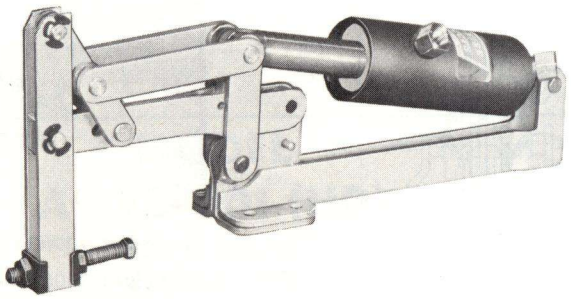
¼ ACTUAL SIZE

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar. 600 Lbs.
1 5/8" from Bottom of Toggle Bar 400 Lbs.
2 5/16" from Bottom of Toggle Bar 300 Lbs.

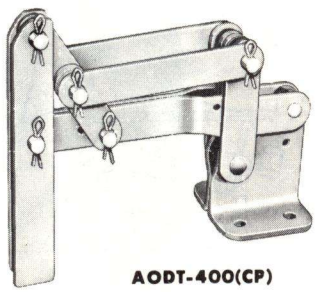
★ **THIS CLAMP CYLINDER AODT-400 HAS BEEN REPLACED WITH AODT-400-1 CYLINDER THE BASE REMAINS THE SAME.**





MODEL AODT-400-1

FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY NR-470009 AVAILABLE



AODT-400(CP)

Weight, 2.05 Lbs.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

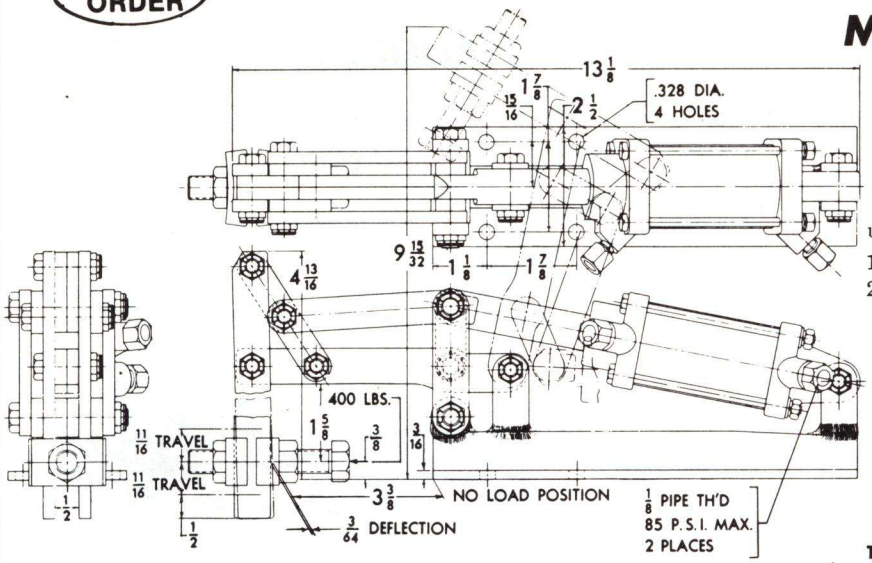
SPECIAL ORDER

MODEL AODT-400(HD)

For Heavy Duty Service

TEMPLATE & PHOTOS

¼ ACTUAL SIZE

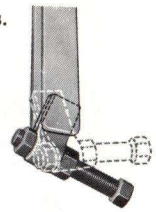


RECOMMENDED LOAD

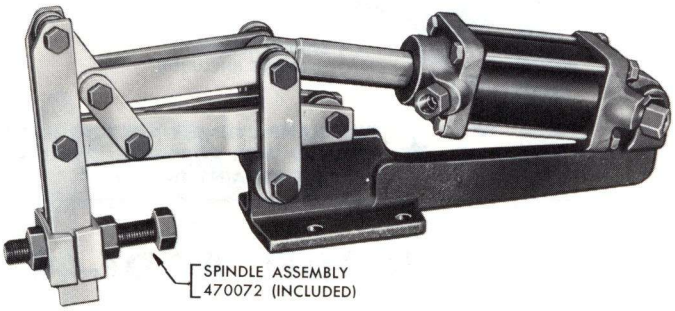
15/16" from Bottom of Toggle Bar . . . 600 Lbs.
1 5/8" from Bottom of Toggle Bar . . . 400 Lbs.
2 5/16" from Bottom of Toggle Bar . . . 300 Lbs.

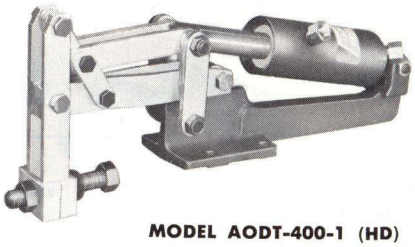
Weight, 7.60 Lbs.

FOR *ANGULAR* CLAMPING BOLT RETAINER ASSEMBLY R-470078 AVAILABLE



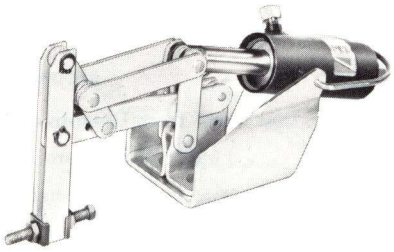
★ **THIS CLAMP CYLINDER AODT-400 (HD) HAS BEEN REPLACED WITH AODT-400-1 (HD) CYLINDER THE BASE REMAINS THE SAME.**





MODEL AODT-400-1 (HD)

SPECIAL ORDER



MODEL AODT-401

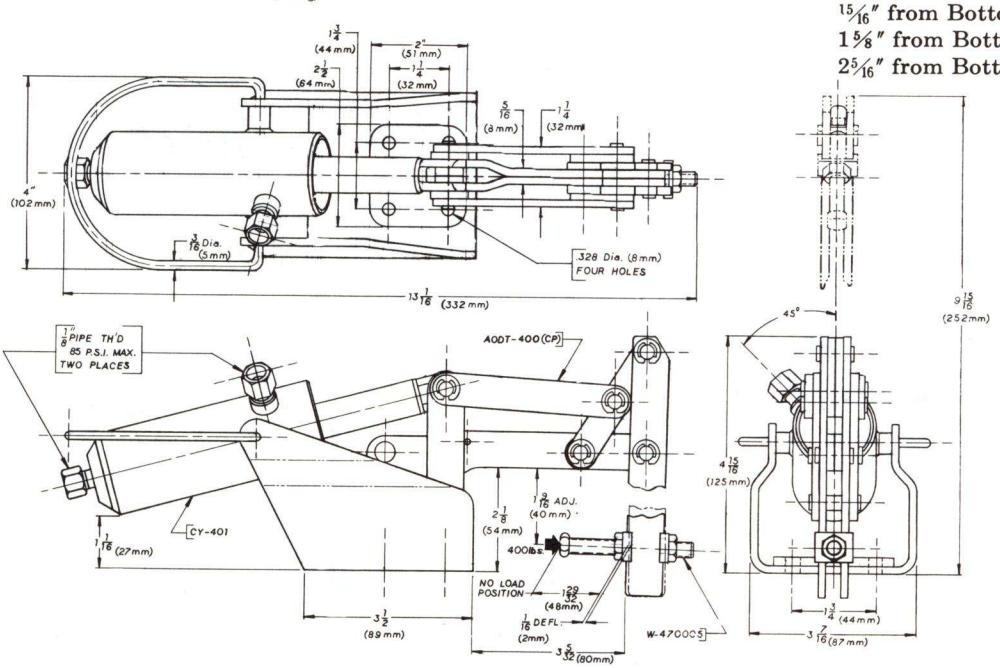
For Heavy Duty Service

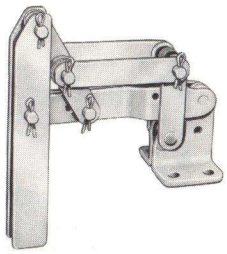
TEMPLATE & PHOTOS

¼ ACTUAL SIZE

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar . . . 600 Lbs.
1 5/8" from Bottom of Toggle Bar . . . 400 Lbs.
2 5/16" from Bottom of Toggle Bar . . . 300 Lbs.





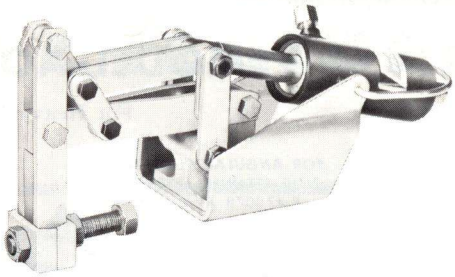
AODT-400(CP)

Weight, 2.05 Lbs.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER



MODEL AODT-401 (HD)

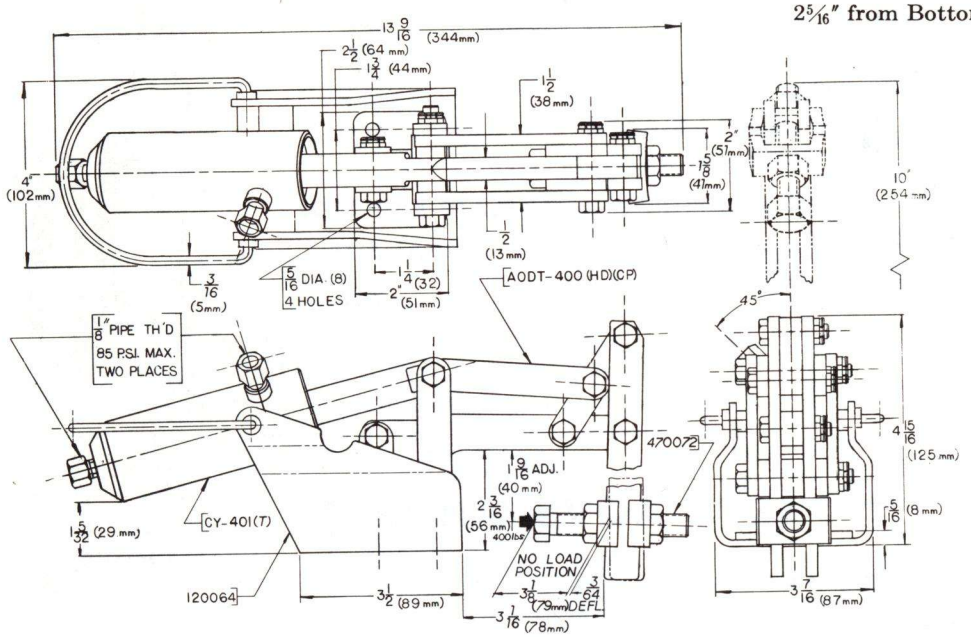
For Heavy Duty Service

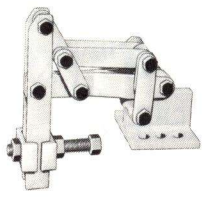
TEMPLATE & PHOTOS

¼ ACTUAL SIZE

RECOMMENDED LOAD

15/16" from Bottom of Toggle Bar . . . 600 Lbs.
1 5/8" from Bottom of Toggle Bar . . . 400 Lbs.
2 5/16" from Bottom of Toggle Bar . . . 300 Lbs.





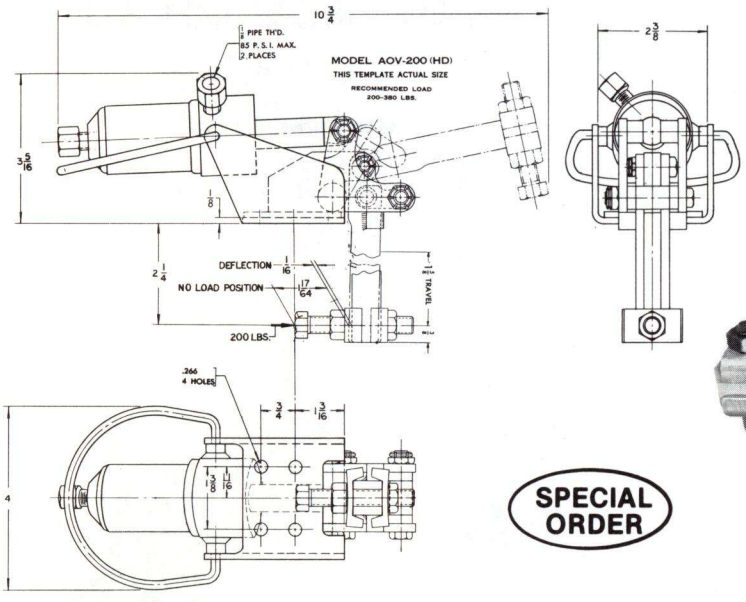
AODT-401 (HD) (CP)

MODEL AOV-201 (HD)

For Heavy Duty Service

RECOMMENDED LOAD

At End of Toggle Bar 200 Lbs.
29/32" in Front of Base 380 Lbs.



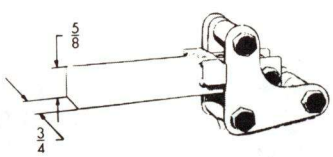
SPECIAL ORDER



MODEL AOVS-201 (HD)

WITH SOLID TOGGLE BAR

Weight, 3.55 Lbs.



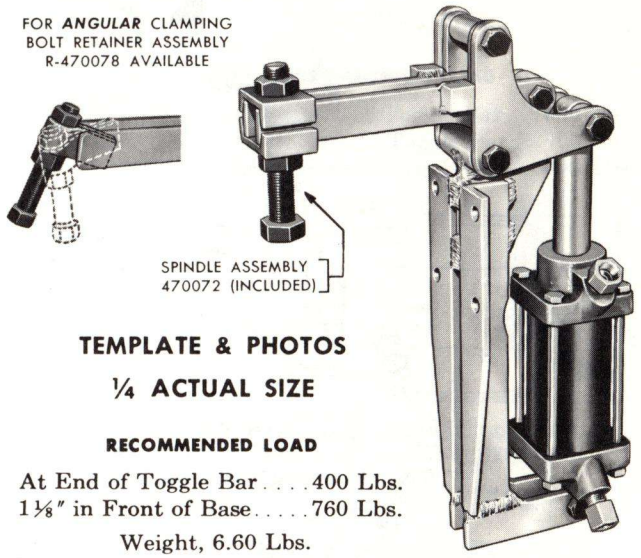
KNU-VISE PRODUCTS

LAPEER, MICHIGAN

SPECIAL ORDER

MODEL AOV-400(HD)

For Heavy Duty Service



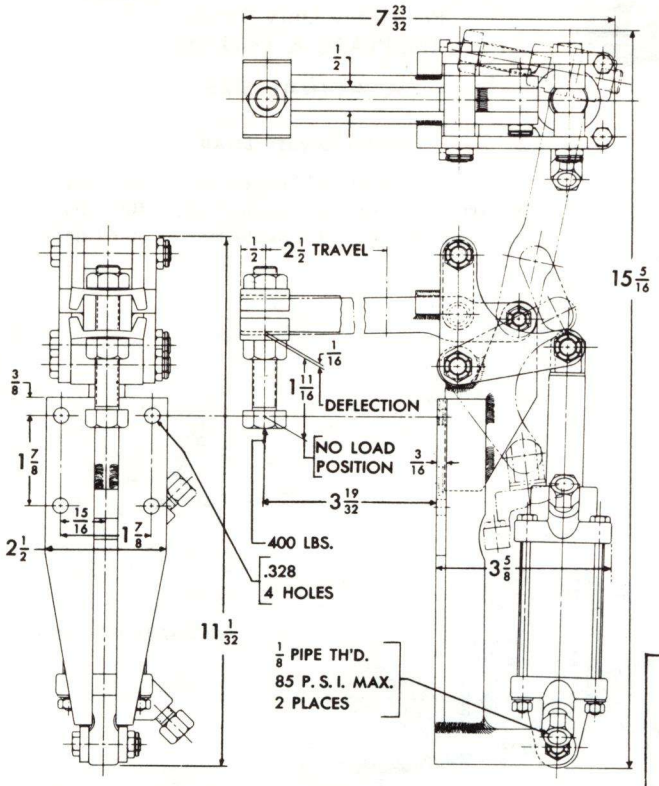
TEMPLATE & PHOTOS

¼ ACTUAL SIZE

RECOMMENDED LOAD

At End of Toggle Bar 400 Lbs.
1⅛" in Front of Base 760 Lbs.

Weight, 6.60 Lbs.

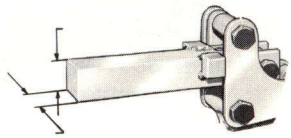


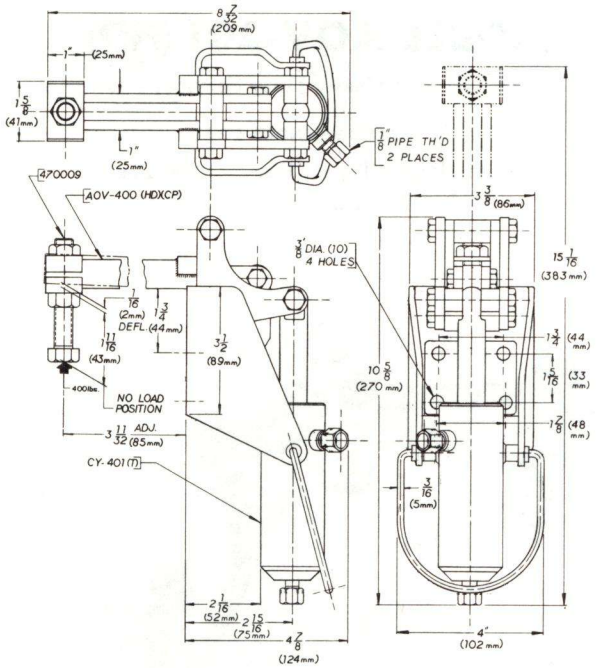
★ **THIS CLAMP CYLINDER AOV-400 (HD) HAS BEEN REPLACED WITH AOV-400-1 (HD) CYLINDER THE BASE REMAINS THE SAME.**

MODEL AOVS-400(HD)

WITH SOLID TOGGLE BAR

Weight, 6.80 Lbs.



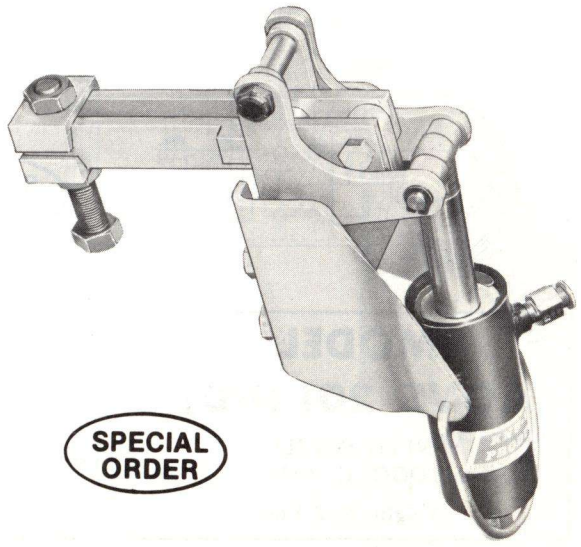


MODEL AOV-401(HD)

For Heavy Duty Service

RECOMMENDED LOAD

At End of Toggle Bar 400 Lbs.
1⅛" in Front of Base 760 Lbs.

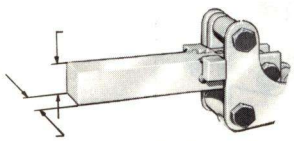


SPECIAL ORDER

MODEL AOVS-401 (HD)

WITH SOLID TOGGLE BAR

Weight, 13.0 Lbs.



AIR or OIL-OPERATED

HIGH RELIABILITY

CYLINDERS

FORCE 100 - 200 - 400 - 800 - 1200 - 2000 lbs.

- Fine Honed Steel Cylinder
- Chrome Plated Piston Rod
- High Quality Large Phosphor-bronze Piston-Rod Bearings
- High Quality "O" Rings
- Automatically Quality Welded Cylinder Design
- Side Mounting or Clevis Pin Mounting available
- Viton Seal for up to 500°F available



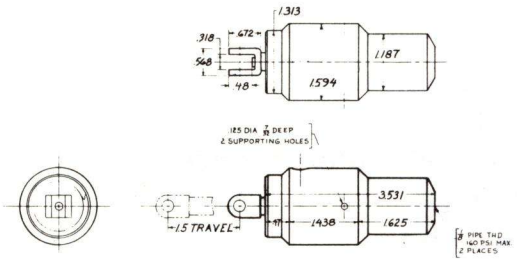
- PRESSURES UP TO 500 P.S.I.

FULL, HALF, and QUARTER SIZE TEMPLATES are available.

KNU-VISE PRODUCTS *LAPEER MANUFACTURING COMPANY • LAPEER, MICHIGAN*

MODEL CY-100(SA)

With Spring Return



TEMPLATE & PHOTOS

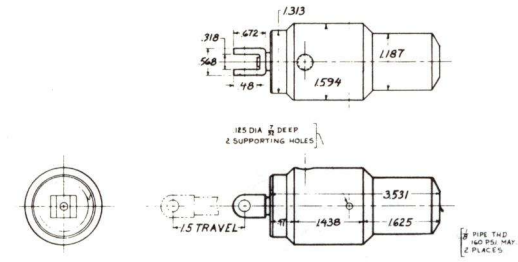
¼ ACTUAL SIZE

Pressure P.S.I.	Force—Lbs.	
	Push	Pull
80 125 250	62 98 196	Internal Spring 20 to 3 Lbs.
Effective Area Sq. In.	.785	—



Weight, 1.15 Lb.
Bore—1
Travel—1½

MODEL CY-100

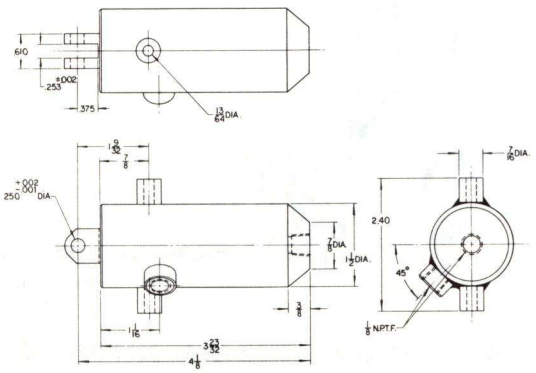


Pressure P.S.I.	Force—Lbs.	
	Push	Pull
80 125 250	62 98 196	52 74 165
Effective Area Sq. In.	.785	.657



Weight, 1.15 Lb.
Bore—1
Travel—1½

MODEL CY-201



TEMPLATE & PHOTOS

¼ ACTUAL SIZE

Pressure P.S.I.	Force—Lbs.	
	Push	Pull
80	98	74
500	610	460
1500	1840	1380
Effective Area Sq. In.	1.227	.920



Weight, 1.18 Lbs.
Bore—1¼
Travel—1½

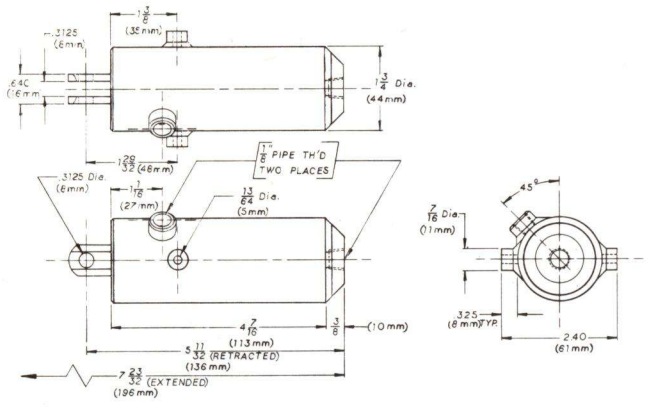


CY-201 (T)

MODEL CY-401

TEMPLATE & PHOTO

¼ ACTUAL SIZE



Pressure P.S.I.	Force - Lbs.	
	Push	Pull
80	142	106
500	885	660
1500	2650	1990
Effective Area Sq. In.	1.77	1.328

Weight, 1.96 Lbs.

Bore—1½

Travel—2⅜



CY-401 (T)

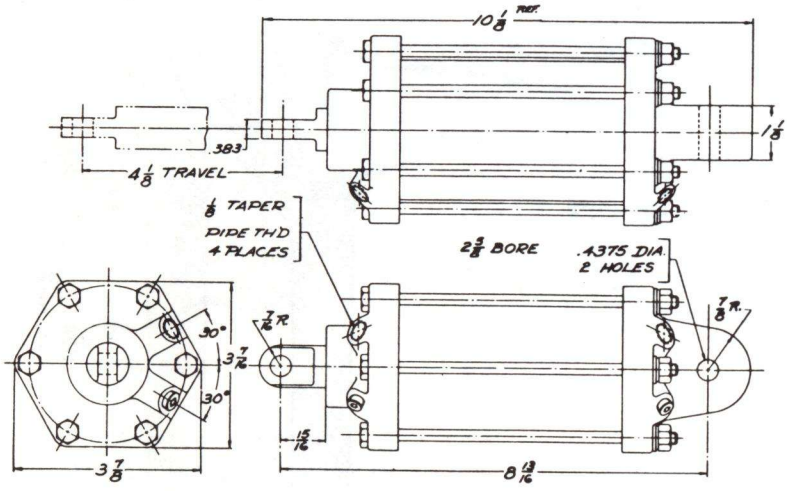


SPECIAL ORDER

MODEL CY-1200

TEMPLATE & PHOTO

¼ ACTUAL SIZE

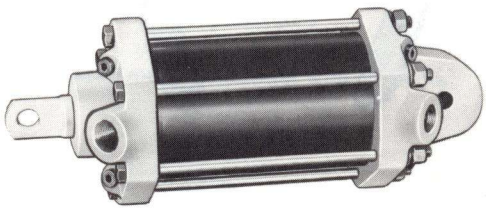


Pressure P.S.I.	Force - Lbs.	
	Push	Pull
80	430	385
500	2710	2410
1500	8120	7220
Effective Area Sq. In.	5.42	4.818

Weight, 6.00 Lbs.

Bore—2⅝

Travel—4⅛



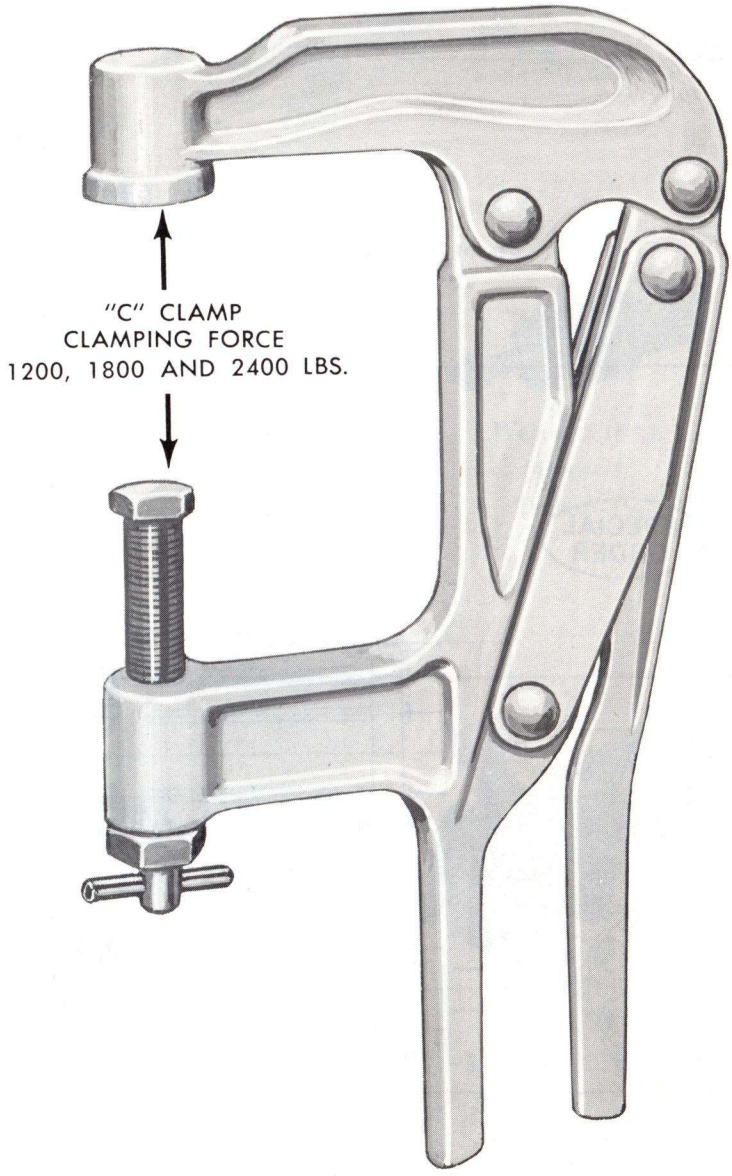
PORTABLE CLAMPS

CLAMPING FORCE 400 - 800 - 1200 - 1600-1800-2400 lbs.

THE PLIER AVAILABLE IN 400, 1200, 1600, 1800 AND 2400 LBS.

CLAMPING FORCE





"C" CLAMP
CLAMPING FORCE
1200, 1800 AND 2400 LBS.

P-400 SERIES

RECOMMENDED LOAD

400 Lbs.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

TOGGLE PLIER

MODEL P-400-2S (Shown)

Max. Clamping Thickness 19/32"

NO LOAD POSITION

17/32

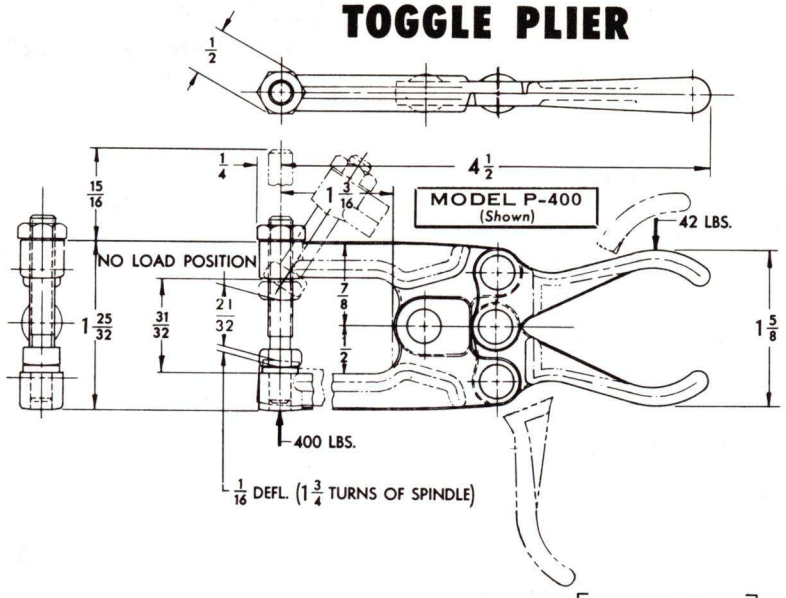
1/16 DEFLECTION (1 3/4 TURNS OF SPINDLE)

WITH ONE RUBBER CAP MODEL P-400-2S-1

Max. Clamping Thickness 7/16"

WITH TWO RUBBER CAPS MODEL P-400-2S-2

Max. Clamping Thickness 3/16"



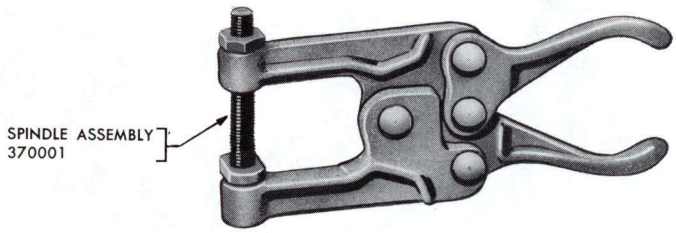
WITH ONE RUBBER CAP MODEL P-400-1.

WITH TWO RUBBER CAPS MODEL P-400-2

TEMPLATE & PHOTOS

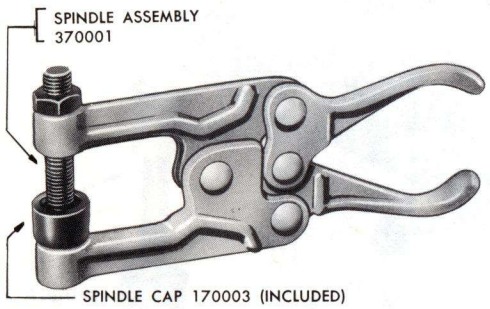
½ ACTUAL SIZE

Weight, 0.32 Lb.



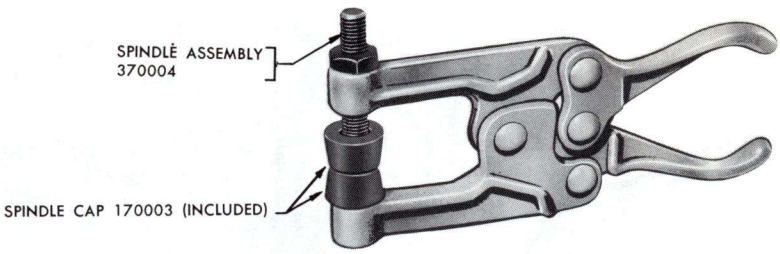
P-400

Recommended Load—400 Lbs.
Maximum Clamping Thickness 23/32"



P-400-1

With One Rubber Cap
Maximum Clamping Thickness 9/16"

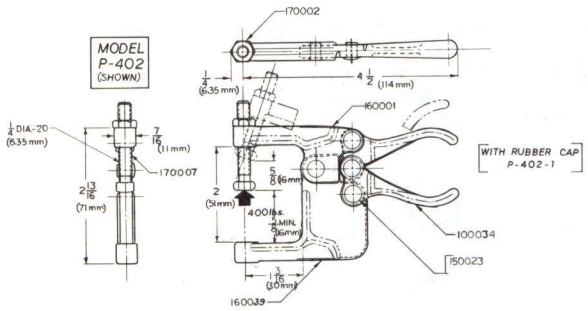


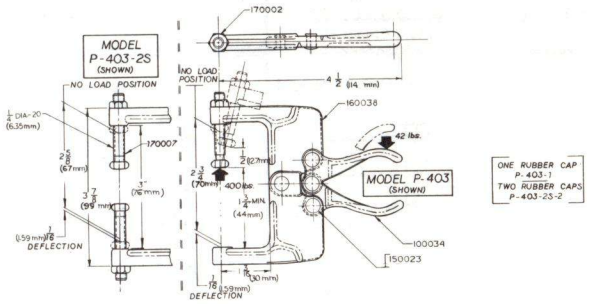
P-400-2

With Two Rubber Caps
Maximum Clamping Thickness 5/16"

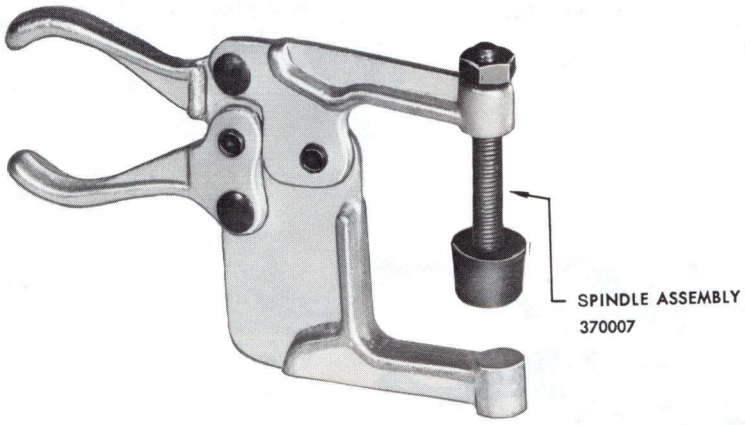
P-402 AND P-403 SERIES

Recommended Load— 400 Lbs.

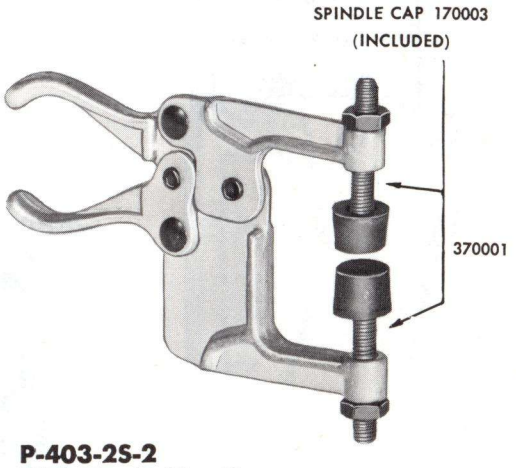




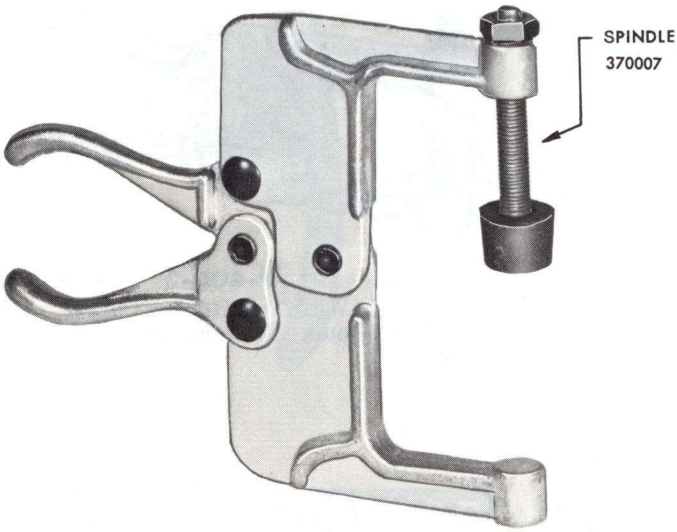
P-402-1
Maximum Clamping Thickness 1½
P-402
Without Cap 1¾



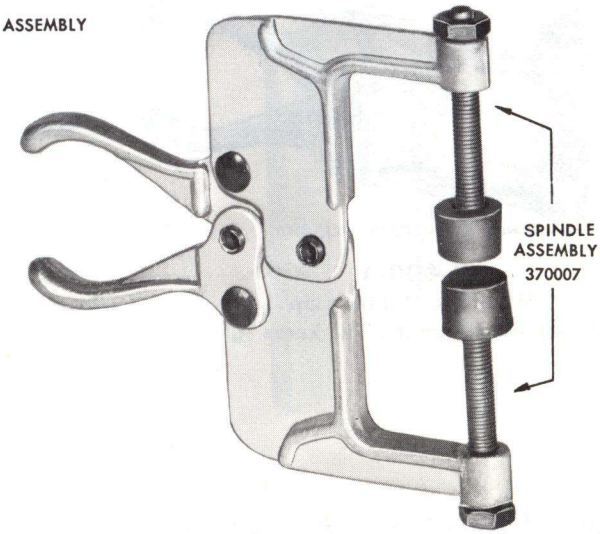
P-402-2S-2
Maximum Clamping Thickness 1⅛
P-402-2S
Without Cap 1½



P-403-1
With One Rubber Cap
Maximum Clamping Thickness 2½
P-403
Without Cap 2¾



P-403-2S-2
With Two Rubber Caps
Maximum Clamping Thickness 2⅛
P-403-2S
Without Cap 2⅝



KNU-VISE PRODUCTS

LAPEER, MICHIGAN

TOGGLE PLIER

P-800 SERIES

RECOMMENDED LOAD

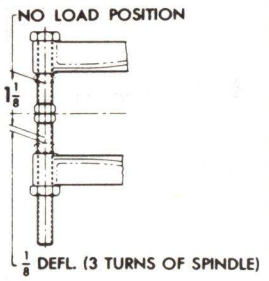
800 Lbs.

MODEL P-800 (Shown)

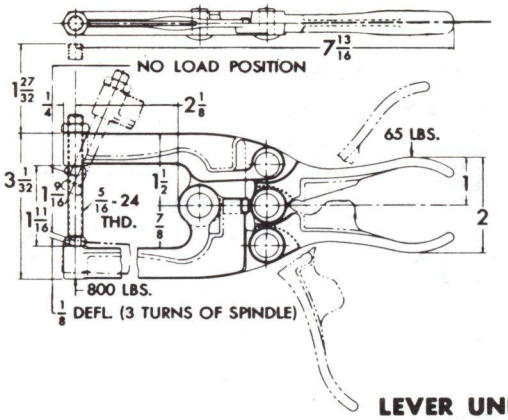
Weight, 0.99 Lb.

MODEL P-800-2S (Shown)

Weight 1.02 Lbs.

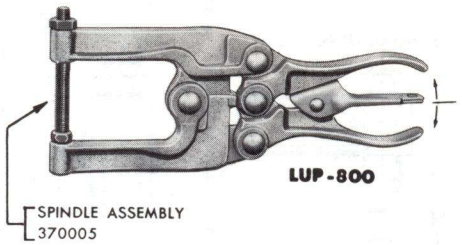






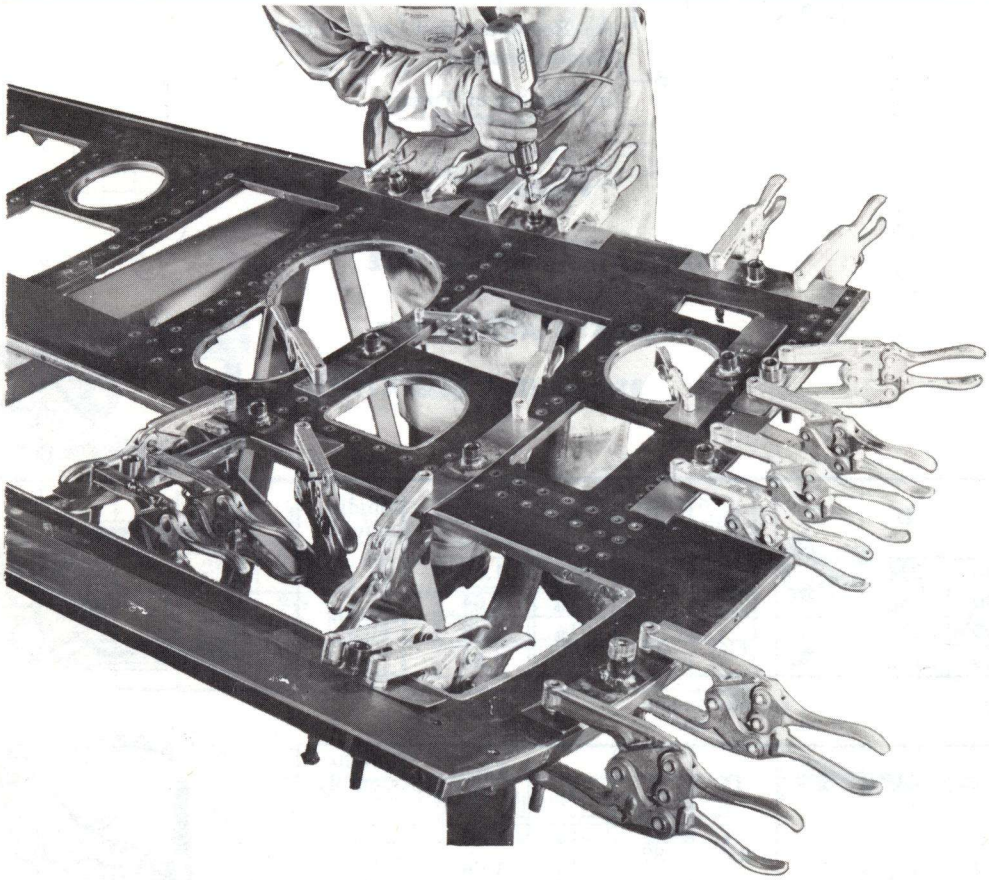
TEMPLATE & PHOTO

¼ ACTUAL SIZE



LEVER UNLOCKING PLIER (see photo)

All above models are available with Lever-Unlocking feature as LUP-series. Example: LUP-800



We welcome any orders for Special Clamps. Our Engineering Design and Manufacturing Departments will get the solution for your fixtures, jigs, positioners, etc.

WITH LONG HANDLES
P-1600, P-2400 SERIES

RECOMMENDED LOADS

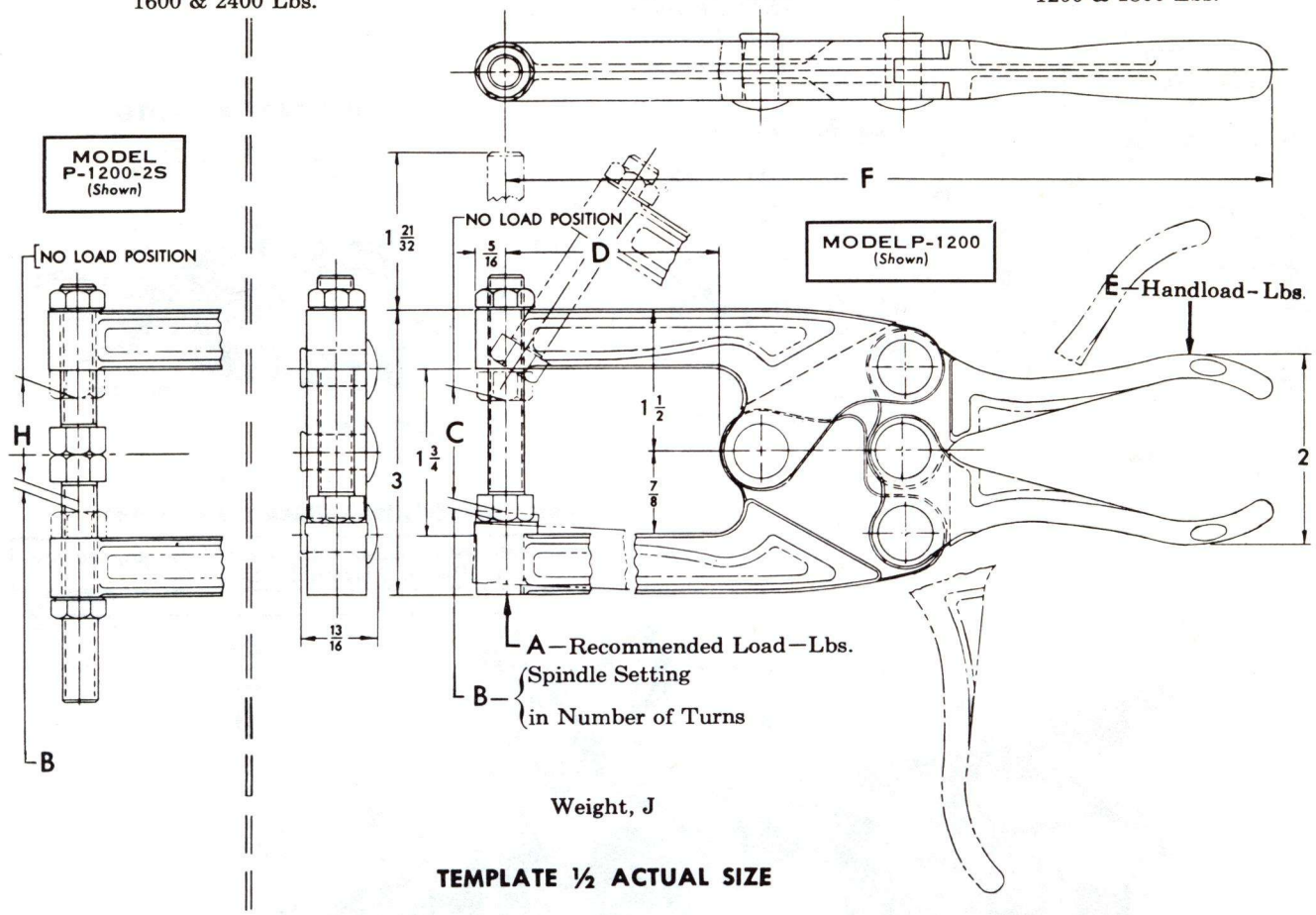
1600 & 2400 Lbs.

TOGGLE PLIER

P-1200, P-1800 SERIES

RECOMMENDED LOADS

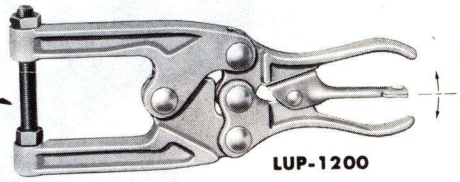
1200 & 1800 Lbs.

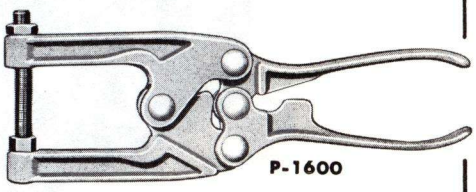


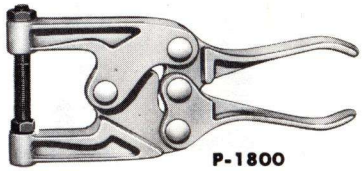
TEMPLATE ½ ACTUAL SIZE

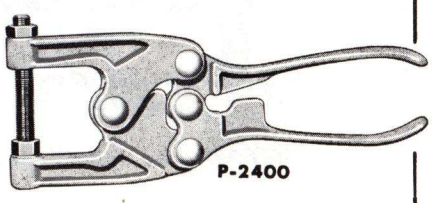
PHOTOS ¼ ACTUAL SIZE

SPINDLE ASSEMBLY 370009


LUP-1200


P-1600


P-1800


P-2400

Model	A	B	C	D	E	F	Lbs. J	Spindle Assembly
P-1200	1200	2½	1 7/32	2¼	82	8 1/16	1.56	370009
P-1600	1600	3 5/16				9 7/16	1.64	
P-1800	1800	1 5/16	1¼	1¼	78	7 1/16	1.46	
P-2400	2400	1¾				8 7/16	1.54	

Model	A	B	H	D	E	F	Lbs. J	Spindle Assembly Type
P-1200-2S	1200	2½	1 1/32	2¼	82	8 1/16	1.60	Short: 370051 & Long: 370009
P-1600-2S	1600	3 5/16				9 7/16	1.68	
P-1800-2S	1800	1 5/16	1 1/16	1¼	78	7 1/16	1.50	
P-2400-2S	2400	1¾				8 7/16	1.58	

LEVER UNLOCKING PLIER (see photo of LUP-1200)

All above models available with Lever Unlocking Feature as LUP-Series. Example: LUP-1200

P-1203, P-1204, P-1206 SERIES

RECOMMENDED LOAD

1200 Lbs.

KNU-VISE PRODUCTS

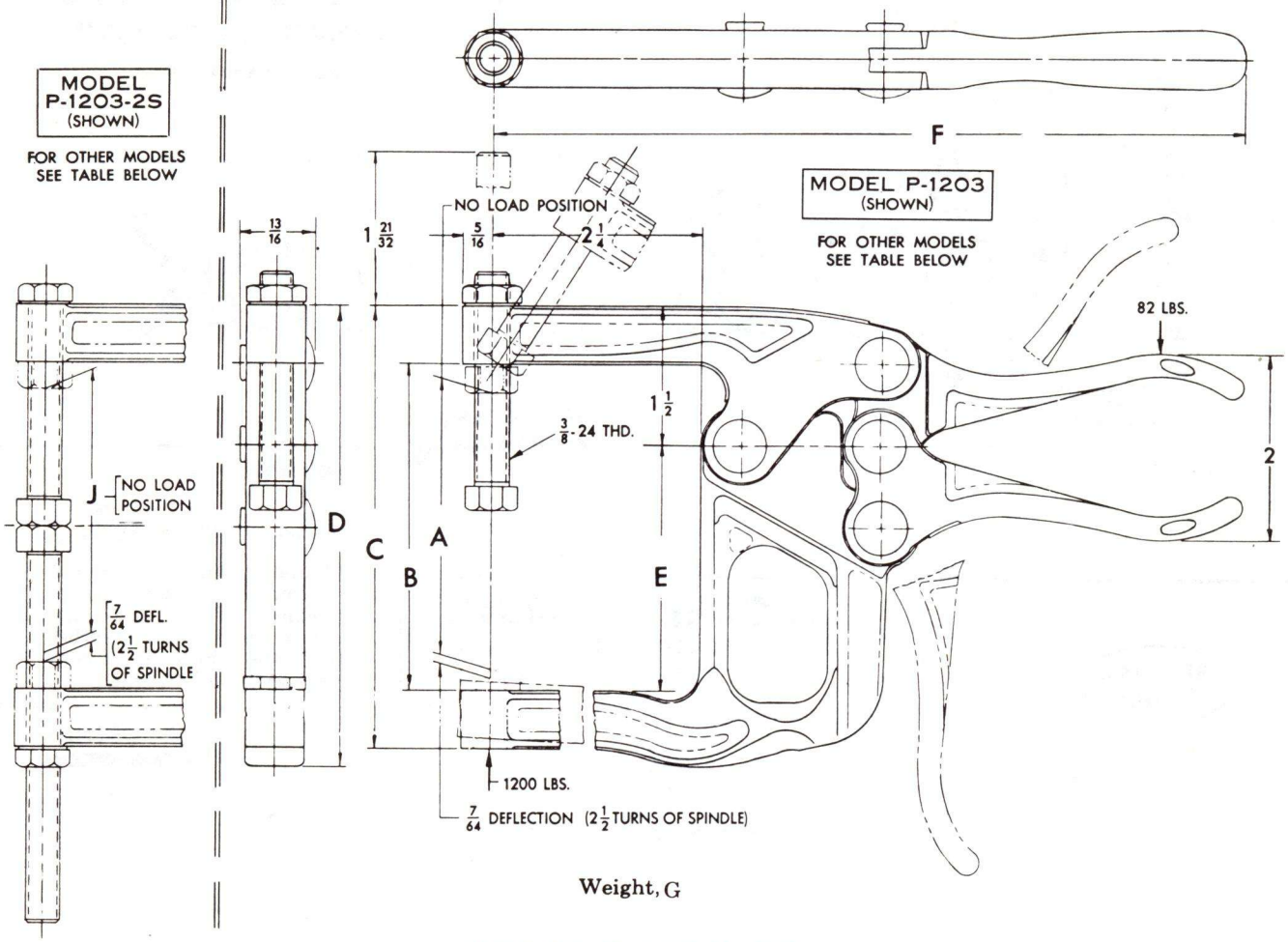
LAPEER, MICHIGAN

TOGGLE PLIER

WITH LONG HANDLES P-1603, P-1604, P-1606 SERIES

RECOMMENDED LOAD

1600 Lbs.

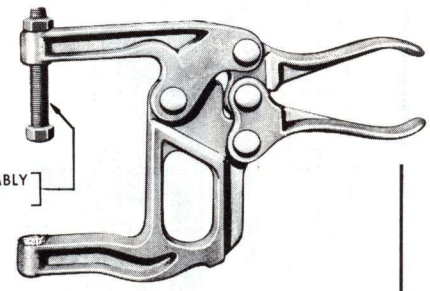


Weight, G

TEMPLATE ½ ACTUAL SIZE

SINGLE SPINDLE PLIERS

Model	A	B	C	D	E	F	Lbs. G	Spindle Assembly	Full Length Spindle Assembly
P-1203 P-1603	3	3 17/32	4 25/32	5	2 21/32	8 1/16 9 7/16	1.86 1.94		370028
P-1204 P-1604	4	4 17/32	5 25/32	6	3 21/32	8 1/16 9 7/16	1.96 2.04	370009	370029
P-1206 P-1606	6	6 17/32	7 25/32	8	5 21/32	8 1/16 9 7/16	2.15 2.23		370030



MODEL P-1203
PHOTO ¼ ACTUAL SIZE

DOUBLE SPINDLE PLIERS

Model	J	B	C	D	E	F	Lbs. G	Spindle Assembly	
								Short	Long
P-1203-2S P-1603-2S	2 13/16	3 17/32	4 25/32	5	2 21/32	8 1/16 9 7/16	1.96 2.04	370009	370028
P-1204-2S P-1604-2S	3 13/16	4 17/32	5 25/32	6	3 21/32	8 1/16 9 7/16	2.20 2.28	370052	370029
P-1206-2S P-1606-2S	5 13/16	6 17/32	7 25/32	8	5 21/32	8 1/16 9 7/16	2.25 2.33	370028	370030

LEVER UNLOCKING PLIER (see photo of LUP-1200)

All above models are available with Lever Unlocking Feature as LUP-Series. Example: LUP-1203.

HLP SERIES

KNU-VISE PRODUCTS
LAPEER, MICHIGAN

SPECIAL ORDER

HOLE LOCATING TOGGLE PLIER

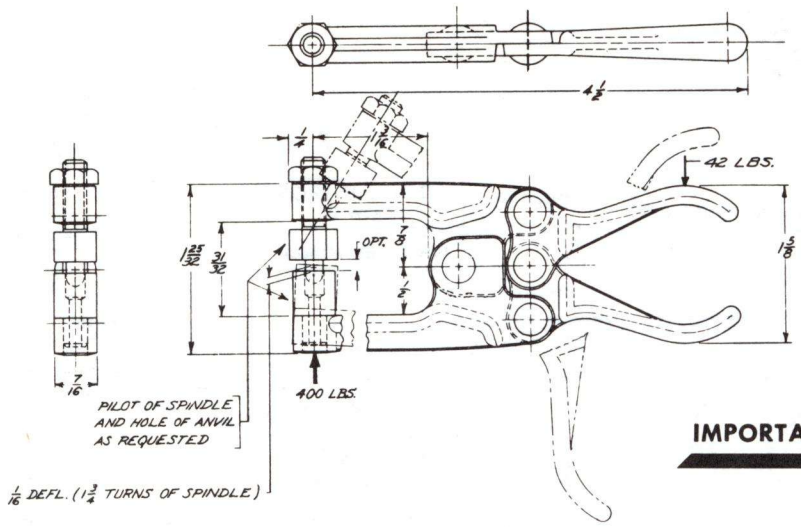
MODEL HLP-400

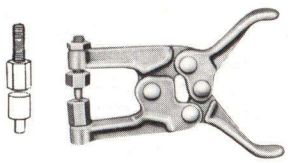
TEMPLATE ½ ACTUAL SIZE

RECOMMENDED LOAD

400 Lbs.

Weight, 0.34 Lb.





IMPORTANT

SPECIFY:

Diameter of Pin on Spindle.
Diameter of Pin on Anvil,
or
Whether Anvil is to have hole to receive Spindle Pin.
Thickness of each individual part to be clamped together, and overall thickness of combined parts to be clamped.

MODEL HLP-1200

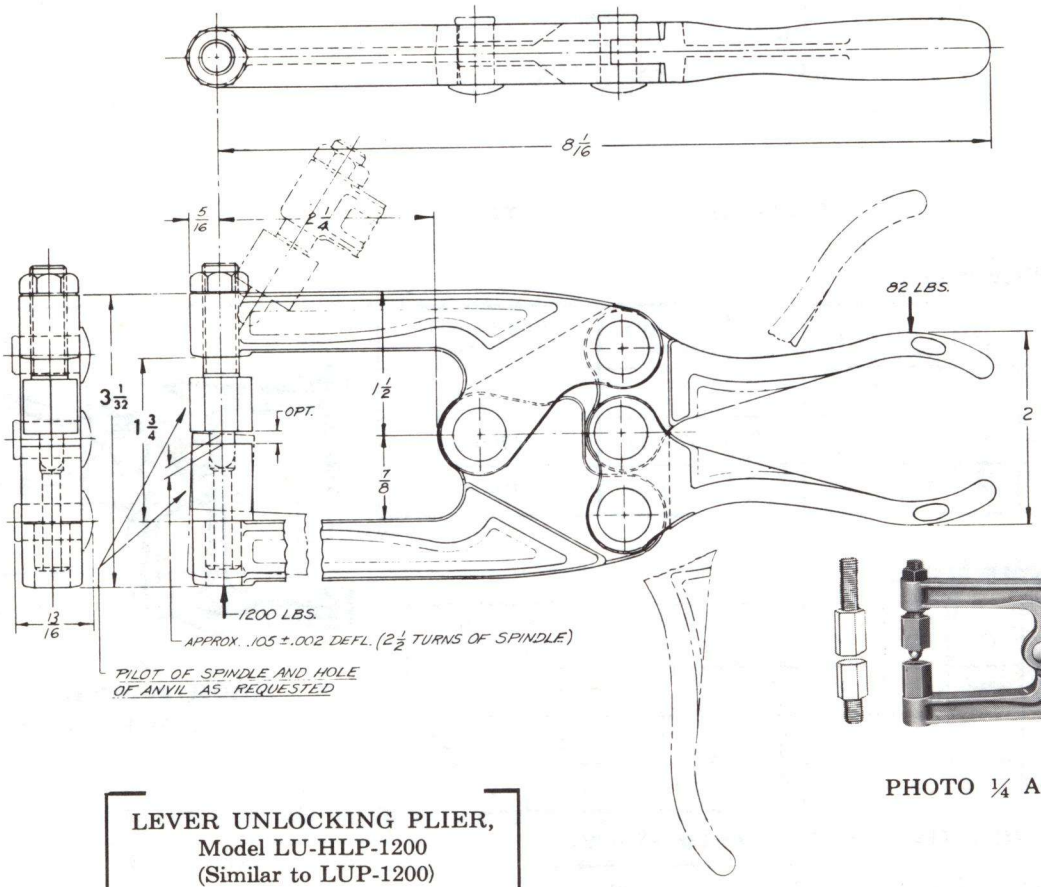
TEMPLATE ½ ACTUAL SIZE

RECOMMENDED LOAD

1200 Lbs.

SPECIAL ORDER

IMPORTANT



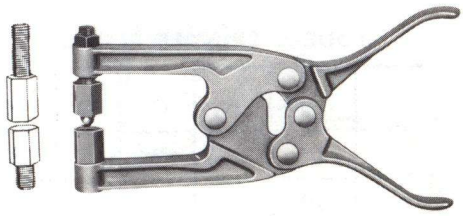


PHOTO ¼ ACTUAL SIZE

LEVER UNLOCKING PLIER,
Model LU-HLP-1200
(Similar to LUP-1200)

C-1200 SERIES

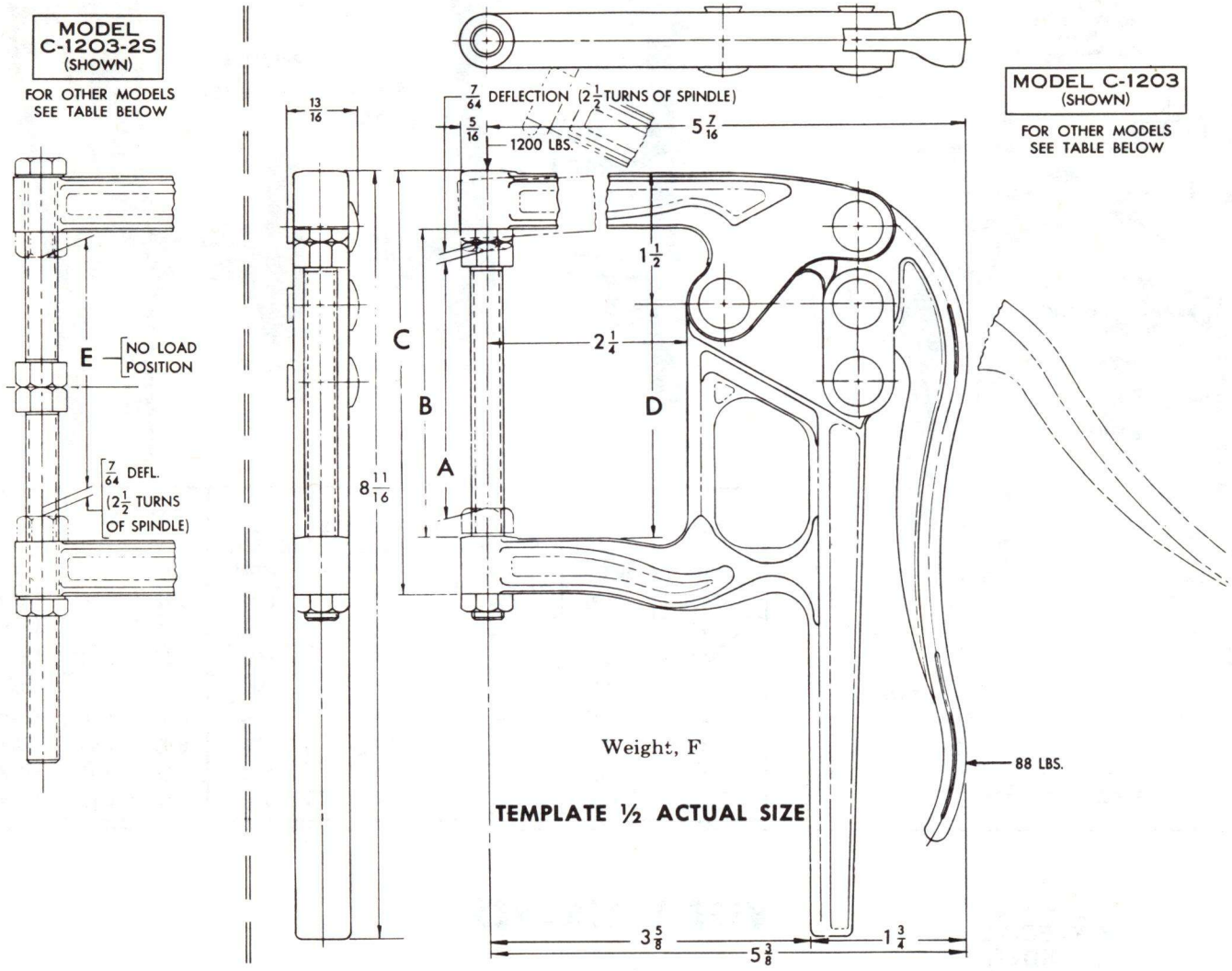
RECOMMENDED LOAD

1200 Lbs.

KNU-VISE PRODUCTS

LAPEER, MICHIGAN

TOGGLE "C" CLAMP

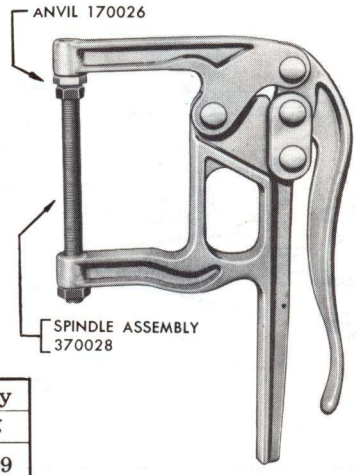


SINGLE SPINDLE "C" CLAMP

Model	A	B	C	D	Lbs. F	Spindle Assembly
C-1200	1 7/32	1 3/4	3	7/8	1.76	370009
C-1203	3	3 17/32	4 25/32	2 21/32	2.05	370028
C-1204	4	4 17/32	5 25/32	3 21/32	2.15	370029
C-1206	6	6 17/32	7 25/32	5 21/32	2.35	370030
C-1800	1 1/4	1 3/4	3	7/8	1.66	370009

DOUBLE SPINDLE "C" CLAMP

Model	E	B	C	D	Lbs. F	Spindle Assembly	
						Short	Long
C-1200-2S	1 1/32	1 3/4	3	7/8	1.80	370051	370009
C-1203-2S	2 13/16	3 17/32	4 25/32	2 21/32	2.10	370009	370028
C-1204-2S	3 13/16	4 17/32	5 25/32	3 21/32	2.25	370052	370029
C-1206-2S	5 13/16	6 17/32	7 25/32	5 21/32	2.45	370028	370030
C-1800-2S	1 1/16	1 3/4	3	7/8	1.71	370051	370009

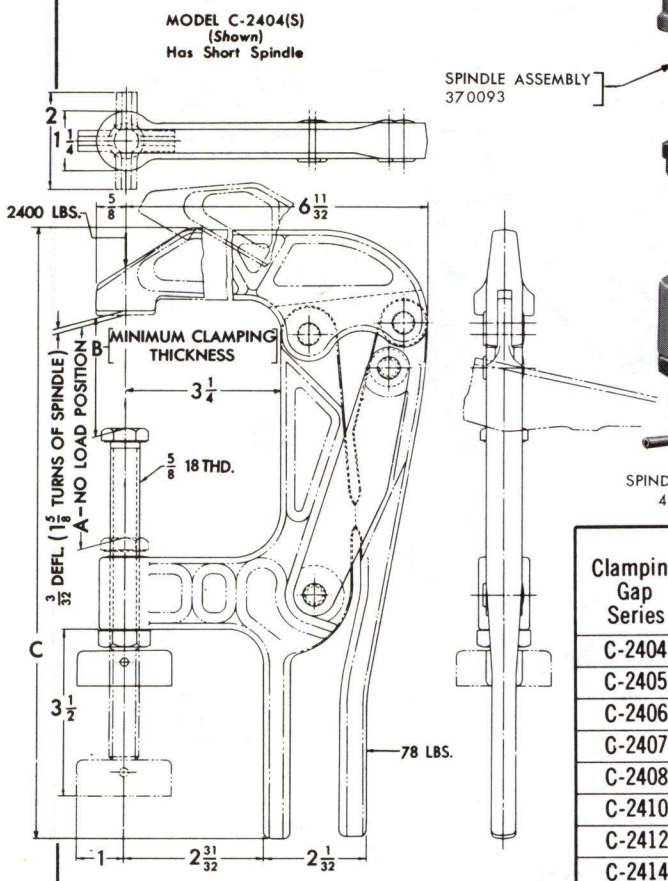


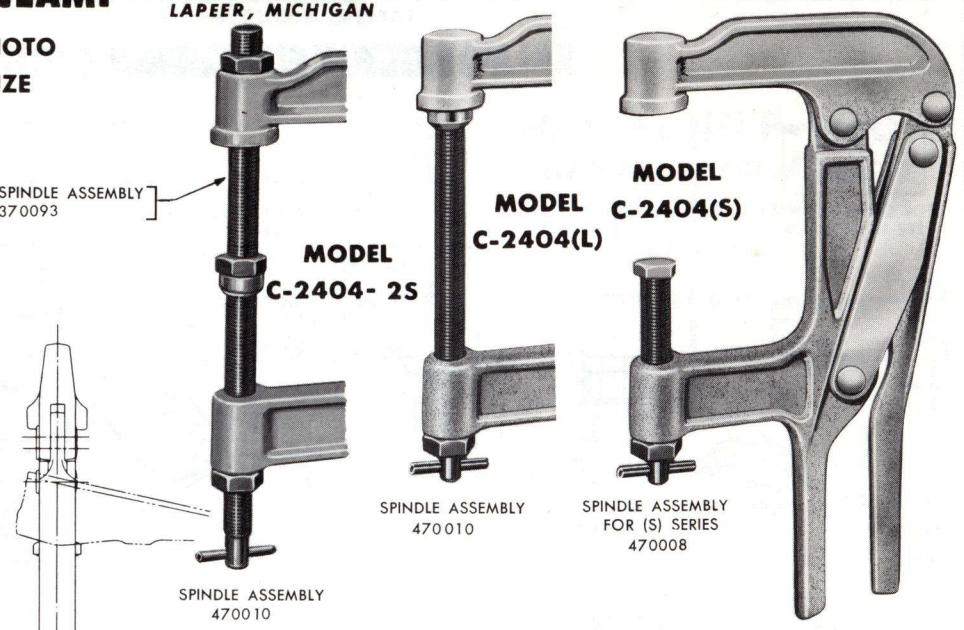
MODEL C-1203
PHOTO ¼ ACTUAL SIZE

KNU-VISE PRODUCTS
LAPEER, MICHIGAN

TOGGLE "C" CLAMP

TEMPLATE & PHOTO
¼ ACTUAL SIZE

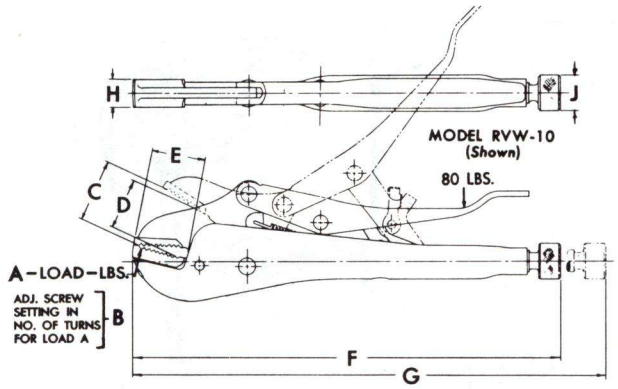




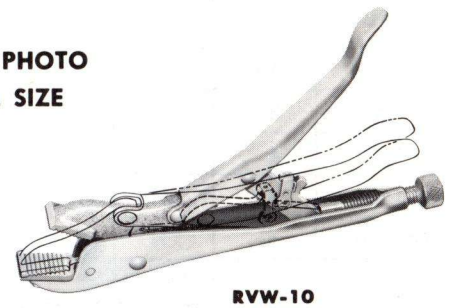
Clamping Gap Series	Load at Spindle	A (S) & (L) Series	B Min. Clamping Thickness for (S) Series	C (S) & (L) Series	Wt., Lbs. (S)	Wt., Lbs. (L)	Spindle Assembly for (L) Series
C-2404	2400	4⅛	1 29/32	12¾	5.42	5.56	470010
C-2405	2400	5⅛	2 29/32	13¾	5.76	5.97	470013
C-2406	2400	6⅛	3 29/32	14¾	5.64	5.93	470097
C-2407	2400	7⅛	4 29/32	15¾	5.98	6.35	470076
C-2408	2400	8⅛	5 29/32	16¾	6.33	6.78	470056
C-2410	2400	10⅛	7 29/32	18¾	6.95	7.56	470062
C-2412	2400	12⅛	9 29/32	20¾	7.58	8.34	470063
C-2414	2400	14⅛	11 29/32	22¾	8.20	9.12	470064

VISE WRENCHES

SPECIAL ORDER



TEMPLATE & PHOTO
¼ ACTUAL SIZE



RVW-10

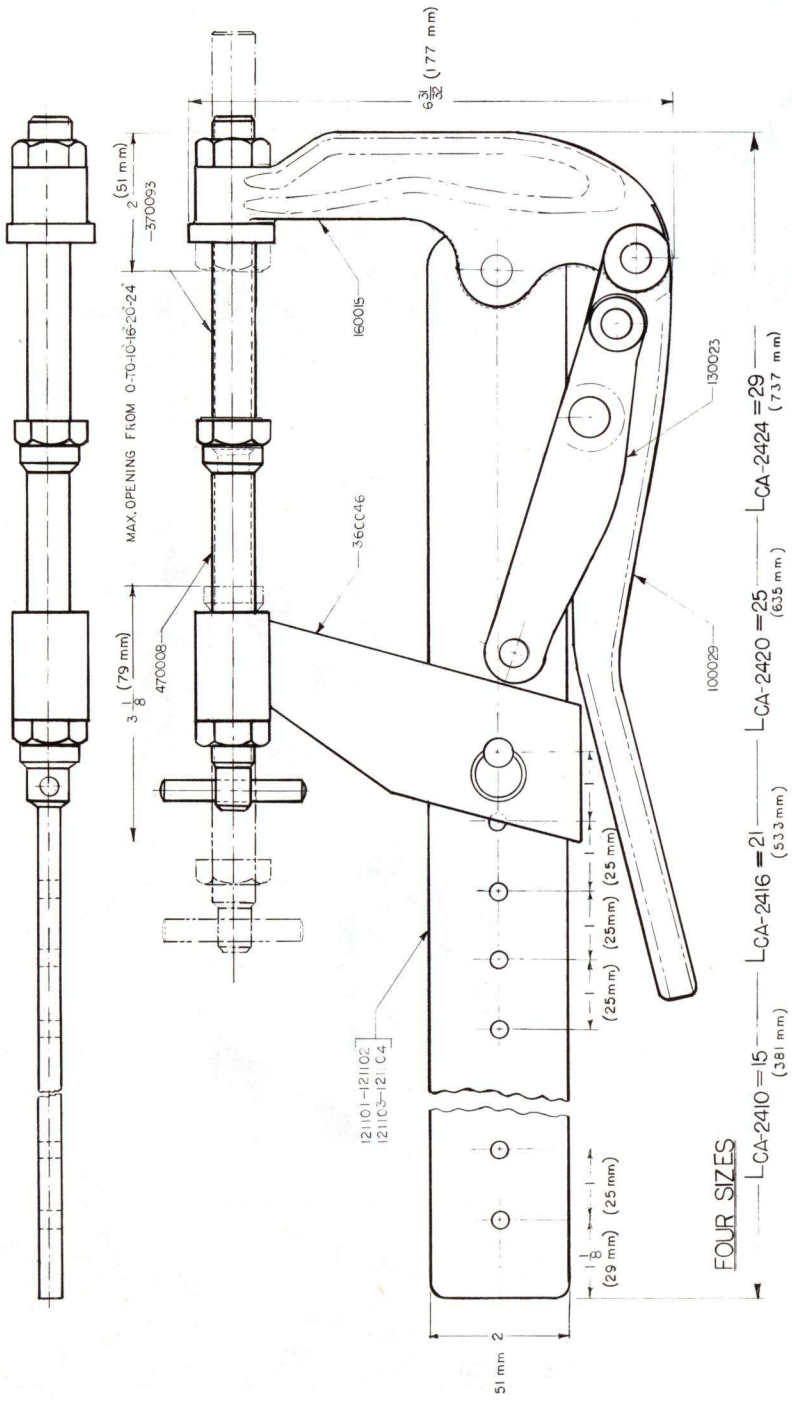
Model No.	Load at A	B	C	D	E	F	G	H	J	Wt. Lbs.	Hand Load	Available Torque on Round Material
VW-7 *RVW-7	1050	5/8	7/8	45/64	13/16	6¼	6⅞	7/16	21/32	0.56	80	15 Ft. Lbs.
VW-10 *RVW-10	1250	½	1 5/16	1 1/16	1⅛	8 15/16	9⅞	9/16	¾	1.14	80	45 Ft. Lbs.

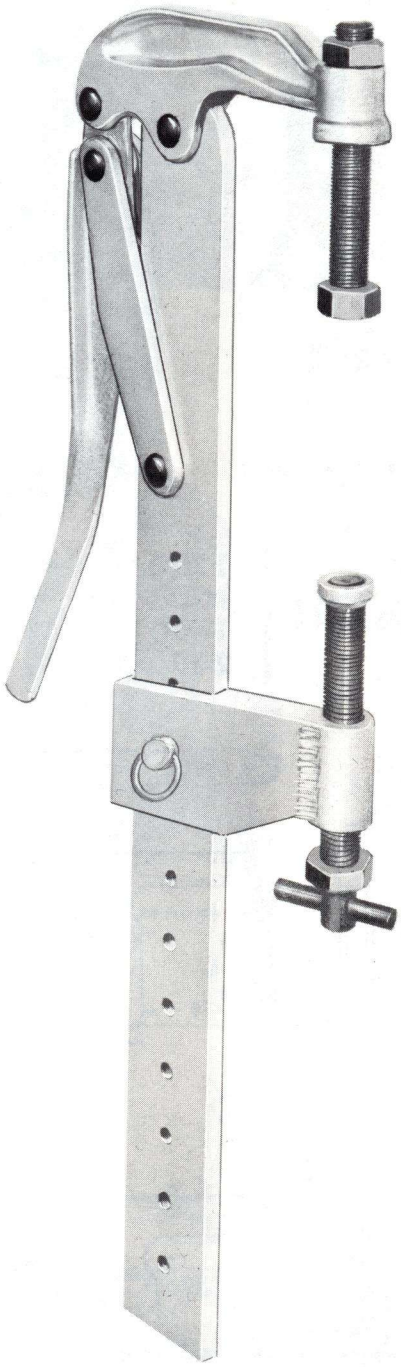
*These models incorporate anti-lock clip and friction clip for ratchet-action.

ADJUSTABLE TOGGLE "C" CLAMP

NEW

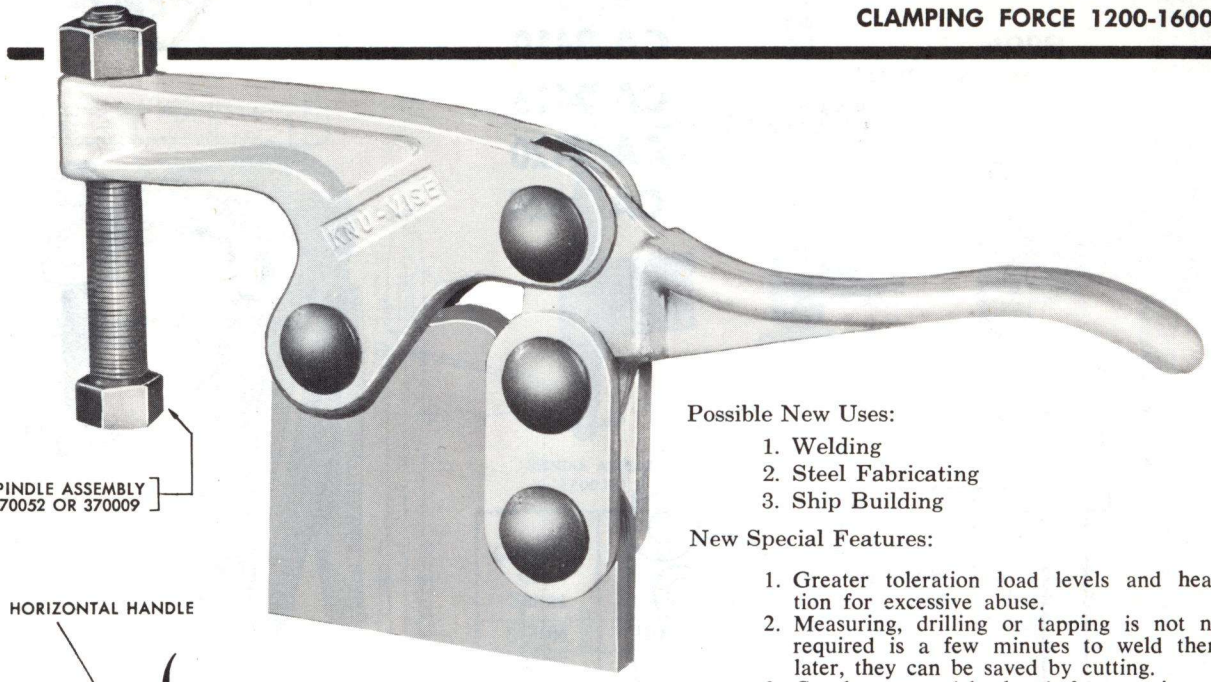
MODEL CA-2410
CA-2416
CA-2420
CA-2424





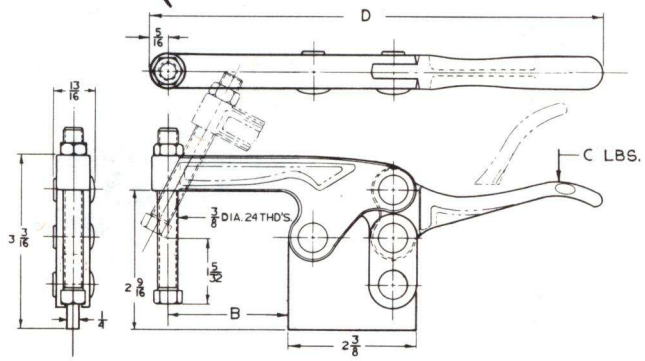
WELDED-ON DROP FORGED CLAMPS

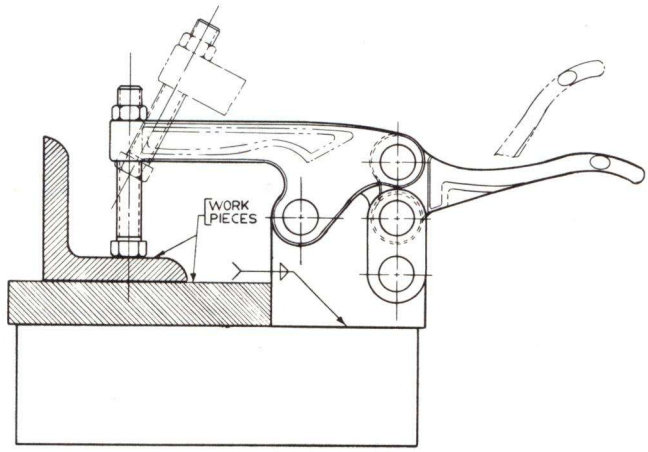
CLAMPING FORCE 1200-1600-1800-2400 LBS.



HORIZONTAL HANDLE

WOH { 1200 / 1600 / 1800 / 2400



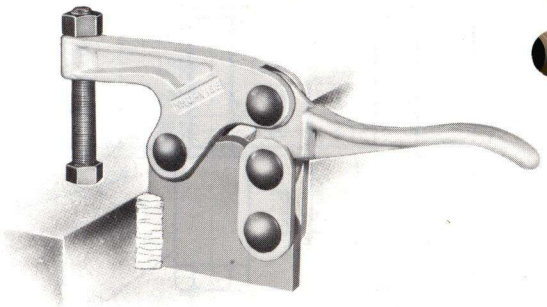


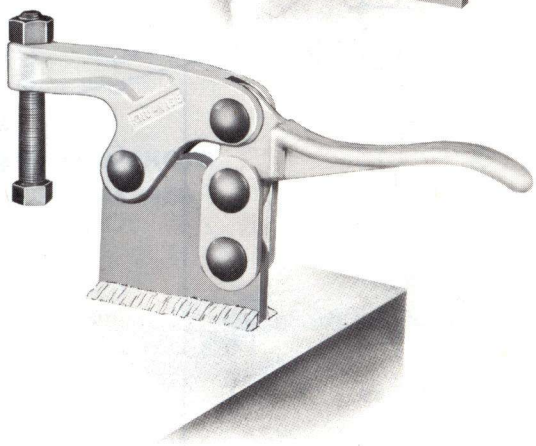
Possible New Uses:

1. Welding
2. Steel Fabricating
3. Ship Building

New Special Features:

1. Greater toleration load levels and heavy duty construction for excessive abuse.
2. Measuring, drilling or tapping is not needed. All that is required is a few minutes to weld them into place, and later, they can be saved by cutting.
3. Can be actuated by hand, foot or air pressure.





Model	A	B	C	D	Spindle Assembly
WOH-1200	1200	2¼	165	$8\frac{1}{16}$	370050 OR 370009
WOH-1600	1600			$9\frac{7}{16}$	
WOH-1800	1800	1¼	155	$7\frac{1}{16}$	
WOH-2400	2400			$8\frac{7}{16}$	

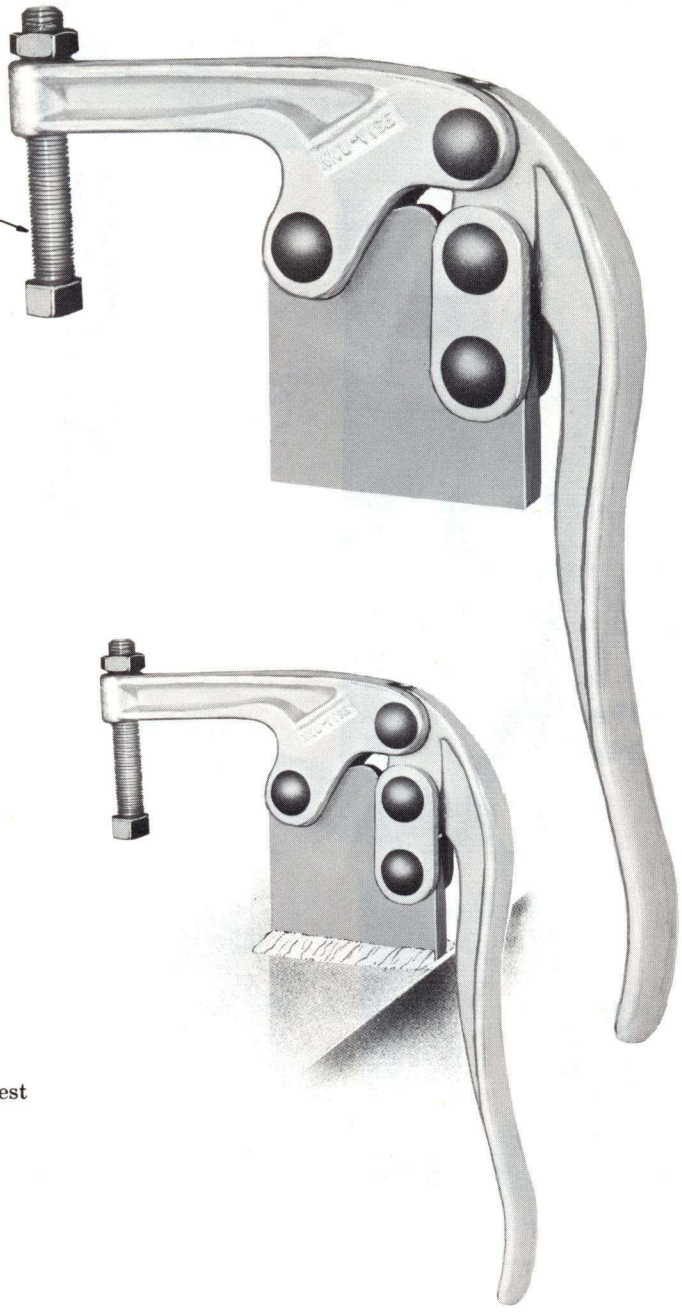
Copper Spindles are Available upon Request

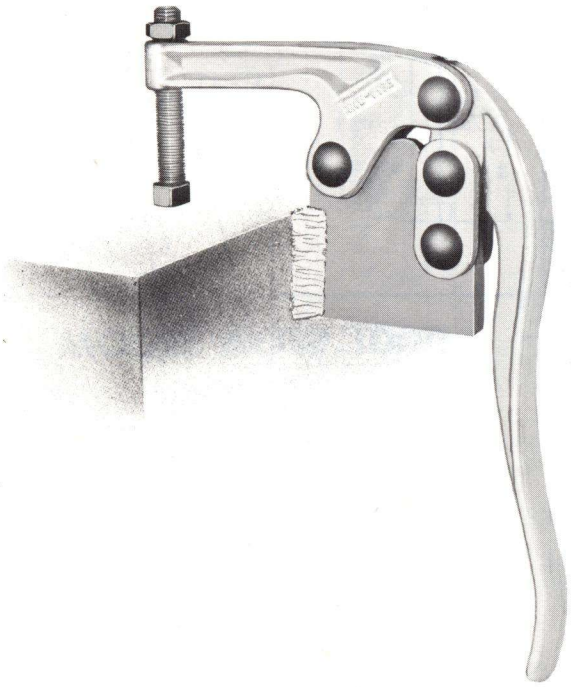
WOD { 1200 / 1800

DOWN HANDLE

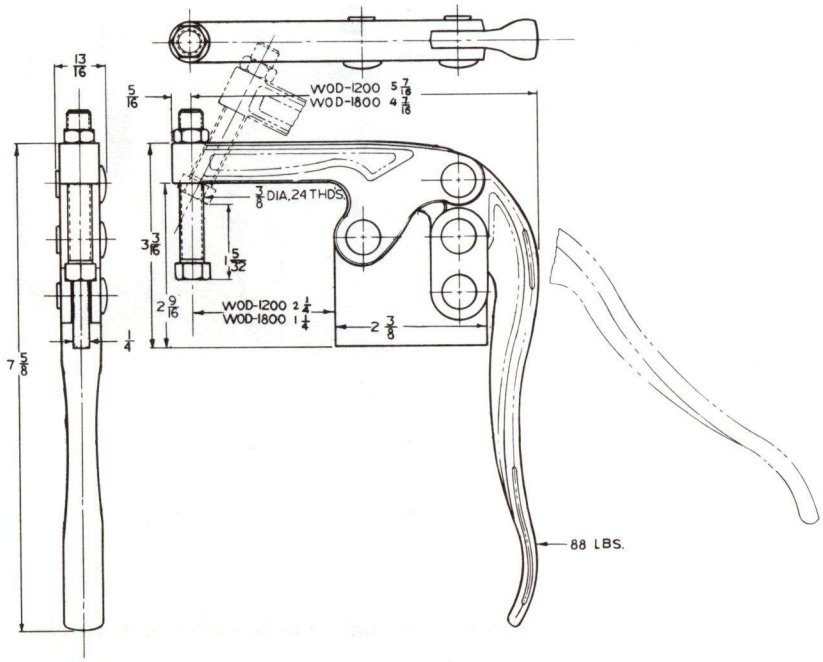
RECOMMENDED LOADS

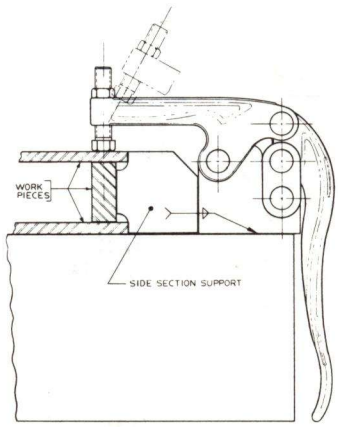
1200 & 1800 Lbs.





Copper Spindles are Available upon Request

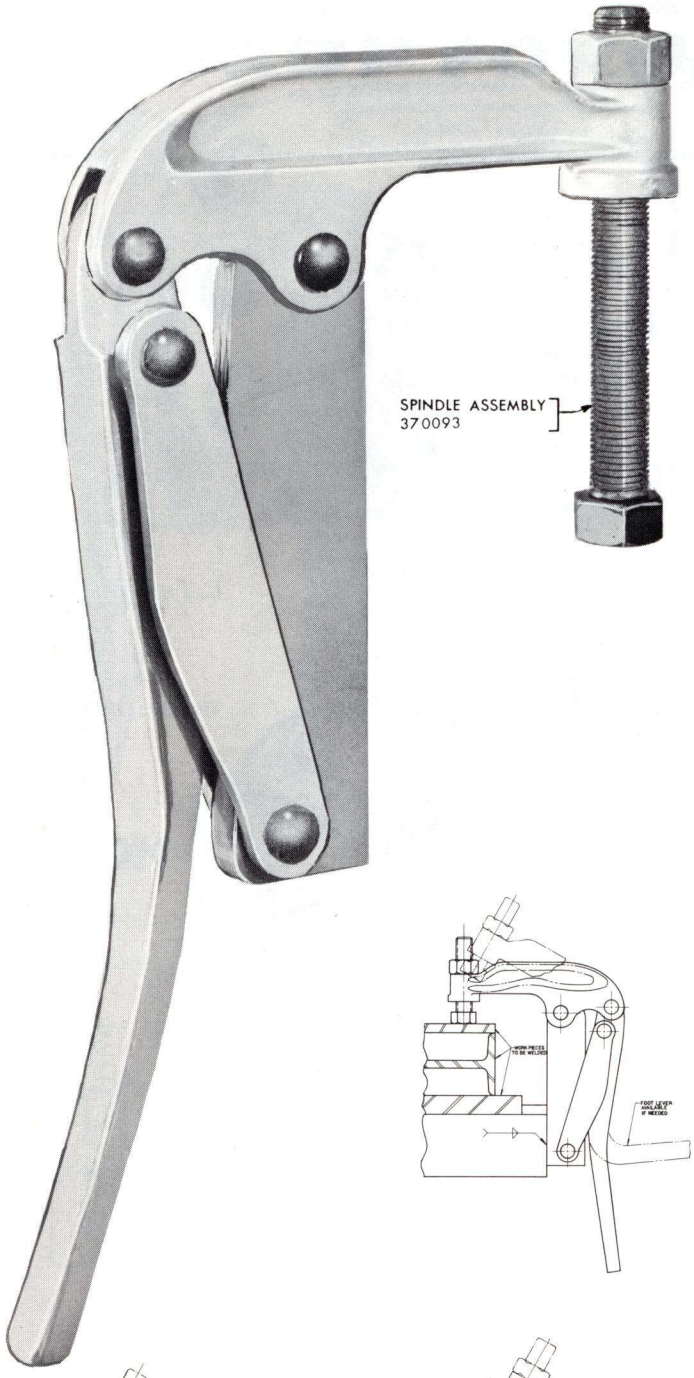


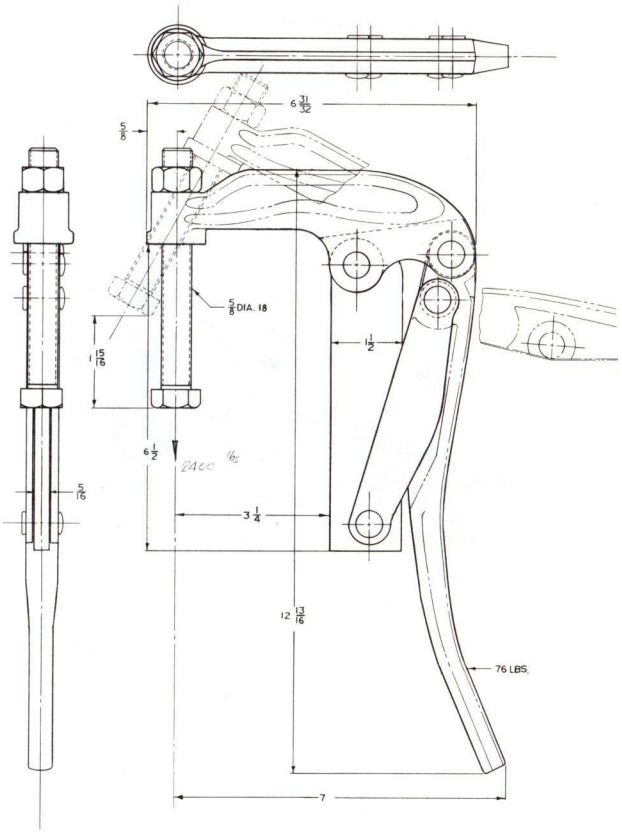


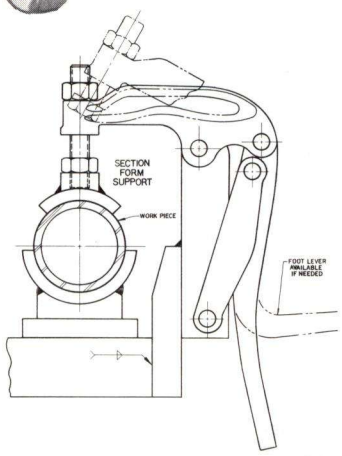
MODEL WOD-2400

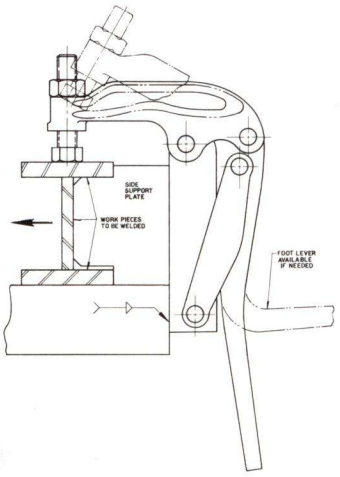
RECOMMENDED LOAD

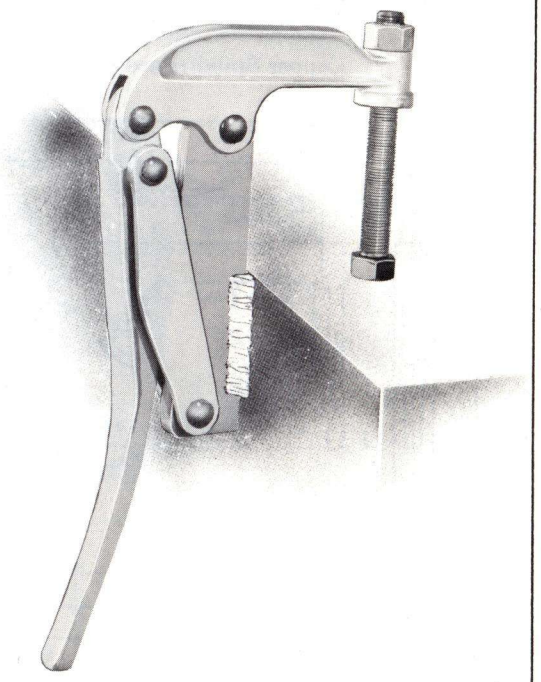
2400 Lbs.











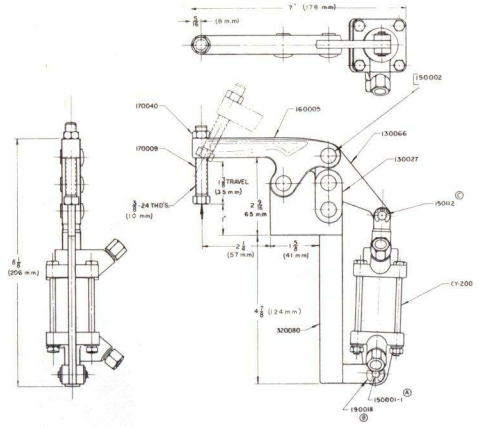
Copper Spindles are Available upon Request

MODEL AOW-600

AOW-800

RECOMMENDED LOAD

1200 Lbs.



AIR or OIL OPERATED CLAMPS

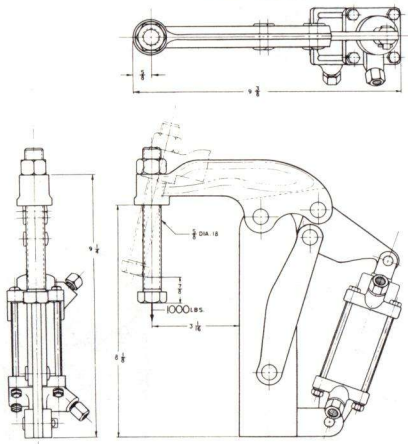


SPECIAL ORDER

MODEL AOW-1000

RECOMMENDED LOAD

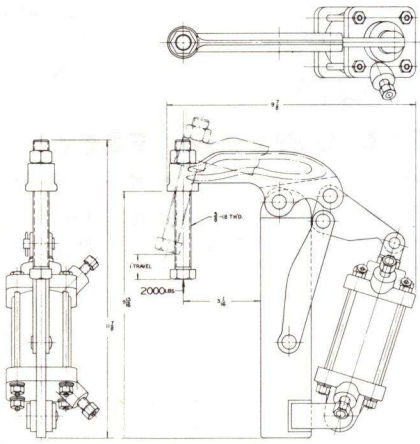
1200 Lbs.



AIR or OIL OPERATED CLAMPS



SPECIAL ORDER



MODEL AOW-2000

RECOMMENDED LOAD

2400 Lbs.

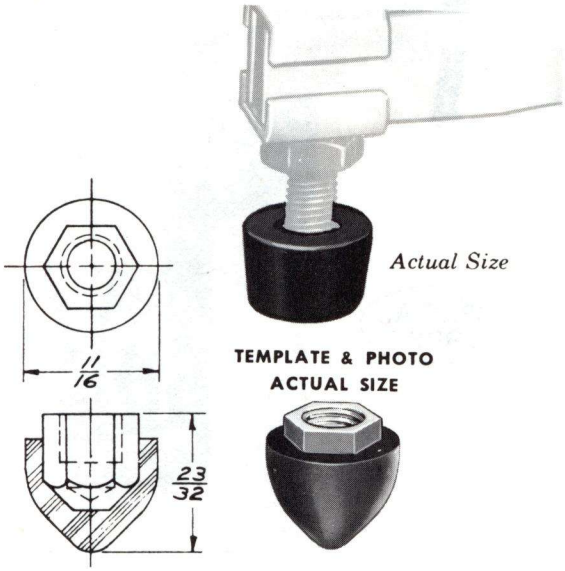
SPECIAL ORDER

Copper Spindles are Available upon Request

NEOPRENE SPINDLE FEET

SPINDLE CAP

For ¼ and 5/16 dia. spindles . . . Part 170003
For 8/32 dia. spindles Part 170119



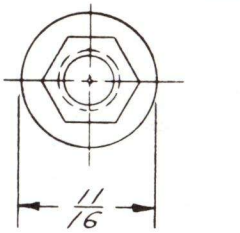
Actual Size

TEMPLATE & PHOTO ACTUAL SIZE

SPINDLE TIPS

For ¼-28 spindles . . . Part 170083-¼-28
For ¼-20 Spindles . Part 170083-¼-20
For 5/16-24 spindles . . . Part 170083
For ⅜-24 spindles . . . Part 170083-⅜

Neoprene Hardness, 85-90 Durometer

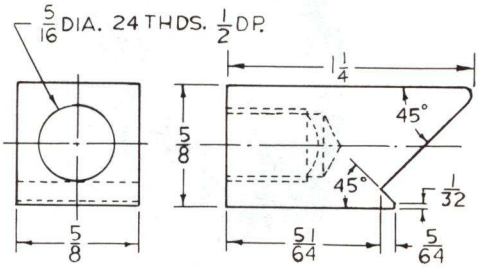


TEMPLATE & PHOTO ACTUAL SIZE



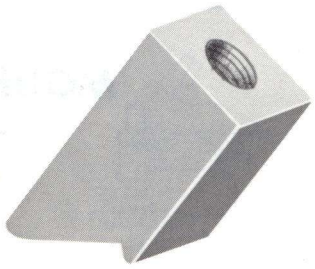
SPINDLE FEET

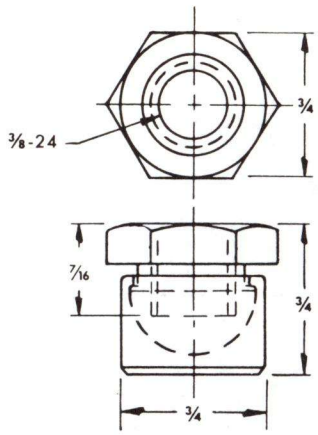
For ¼-28 spindles . . . Part 170086-¼-28
For ¼-20 Spindles . Part 170086-¼-20
For 5/16-24 spindles . . . Part 170086
For ⅜-24 spindles . . . Part 170086-⅜



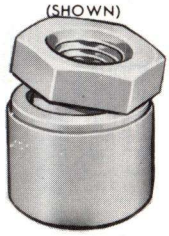
RIGHT ANGLE SPINDLE BLOCK

170510





PART 624 (SHOWN)



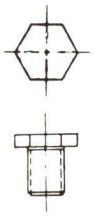
TEMPLATE & PHOTO ACTUAL SIZE

STEEL SWIVEL FEET

Size ¼-20	Part 420	Size ⅜-24	Part 624
Size ¼-28	Part 428	Size ½-20	Part 820
Size 5/16-24	Part 524	Size ⅝-18	Part 1018

ANVIL AND SPINDLE ASSEMBLIES
FOR LIGHT "C" CLAMPS AND PLIERS

ANVIL

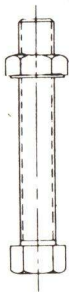


Part Number	Size and Model Numbers			
170026	3/8-24 x 1/2			
	C-1200	P-1200-A	P-1600-A	P-1800-A
	C-1203	P-1203-A	P-1603-A	P-2400-A
	C-1204	P-1204-A	P-1604-A	
	C-1206	P-1206-A	P-1606-A	

SPINDLE ASSEMBLIES (Spindle and Nut)

Length of spindle is **O**ver**A**ll Dimension.

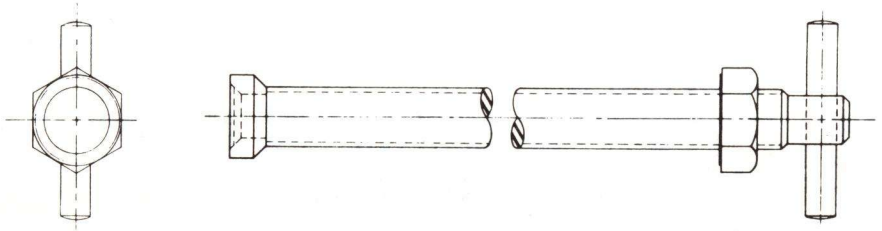




370001	1/4-20 x 1-9/16 O.A.				
	P-400	P-400-1	P-400-2S		
370004	1/4-20 x 1-5/16 O.A.				
	P-400-2				
370005	5/16-24 x 2-3/4 O.A.				
	P-800				
370009	3/8-24 x 2-19/32 O.A.				
	C-1200	P-1200	P-1200-2S	PJCG-1200	PJPG-1200
	C-1200-2S	P-1203	P-1203-2S		PJPG-1203
	C-1203-2S	P-1204	P-1600-2S	PJP-1203	PJPG-1204
	C-1800	P-1206	P-1603-2S	PJP-1204	PJPG-1206
	C-1800-2S	P-1600	P-1800-2S	PJP-1206	PJPG-1800
		P-1800	P-2400-2S		
	FGP-1203	P-2400			
370028	3/8-24 x 4-9/32 O.A.				
	C-1203	P-1203-2S	P-1603-2S	PJC-1203	
	C-1203-2S	P-1206-2S	P-1606-2S	PJCG-1203	
	C-1206-2S				
		As **FULL LENGTH** spindle in pliers.			
	P-1203	P-1603			
370029	3/8-24 x 5-9/32 O.A.			As **FULL LENGTH** spindle in pliers.	
	C-1204	P-1204-2S	PJC-1204		
	C-1204-2S	P-1604-2S	PJCG-1204	P-1204	P-1604
370030	3/8-24 x 7-9/32 O.A.				As **FULL LENGTH** spindle in pliers.
	C-1206	P-1206-2S	PJC-1206	PJCG-1206	P-1206
	C-1206-2S	P-1606-2S			P-1606
370051	3/8-24 x 1-3/4 O.A.				
	C-1200-2S	P-1200-2S	P-1800-2S		
	C-1800-2S	P-1600-2S	P-2400-2S		
370052	3/8-24 x 3-1/4 O.A.				
	C-1204-2S	P-1204-2S	PJC-1200	PJP-1200	
		P-1604-2S		PJP-1800	
370055	1/4-20 x 1-1/32 O.A.				
	P-400-2S				
370102	5/16-24 x 1-11/16 O.A.				
	P-800-2S				
370093	WOD-2400				

SPINDLE ASSEMBLIES
FOR 2400 SERIES "C" CLAMPS

Assembly consists of: Spindle (and Ferrule), **Nut and Pin.**
Length of spindle is **O**ver**A**ll Dimension.

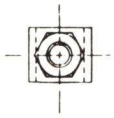


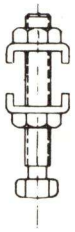
SEE NEXT PAGE

Part Number	Size and Model Numbers			
470008	5/8-18 x 5-9/32 O.A.			
	C-2404 (S)	C-2407 (S)	C-2410 (S)	C-2413 (S)
	C-2405 (S)	C-2408 (S)	C-2411 (S)	C-2414 (S)
	C-2406 (S)	C-2409 (S)	C-2412 (S)	
470010	5/8-18 x 7-1/8 O.A. C-2404 (L)			
470062	5/8-18 x 13-1/8 O.A. C-2410 (L)			
470076	5/8-18 x 10-1/8 O.A. C-2407 (L)			
470013	5/8-18 x 8-1/8 O.A. C-2405 (L)			
470063	5/8-18 x 15-1/8 O.A. C-2412 (L)			
470097	5/8-18 x 9-1/8 O.A. C-2406 (L)			
470056	5/8-18 x 11-1/8 O.A. C-2408 (L)			
470064	5/8-18 x 17-1/8 O.A. C-2414 (L)			

SPINDLE ASSEMBLIES
FOR FIXED MOUNTED CLAMPS

Assembly consists of: Spindle, Toggle Bar Spacers and Nuts
Length of spindle is **O**ver**A**ll Dimension.

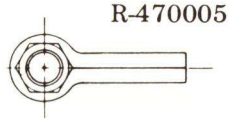




Part Number	Size and Model Numbers			
N-470005	5/16-24 x 2-3/4 O.A.			
	AO-100	AODT-201	H-600	S-200 T-200
	AO-200	D-200 x 45°	SH-600	SL-200 x 45° V-200
	AO-201	DSR-200 x 45°	J-200	SR-200 x 45°
	AODT-100	DTS-200		
		DTV-200		
W-470005	5/16-24 x 2-3/4 O.A.			
	AO-400	DTS-400	S-400	V-400 J-400
	AODT-400	DTV-400	T-400	VA-400
N-470007	1/4-20 x 1-7/8 O.A.			
	H-200	S-100	V-100	
	SH-200	T-100		
W-470007	1/4-20 x 1-7/8 O.A.			
	H-400	H-400 x 20°	SH-400	
470009	3/8-24 x 2-19/32 O.A.			
	AO-201	AOV-201(HD)	AOV-201(HD)	V-200 (HD)
N-470020	5/8-18 x 5-15/32 O.A.			
	AO-1200	CAV-1200	V-1200	
		CASB-1200	SB-1200	
W-470020	5/8-18 x 5-15/32 O.A.			
	AODT-1200	CASB-2000	DTV-1200	V-2000
		CAV-2000	DTSB-1200	SB-2000
470072	1/2-20 x 3-3/8 O.A.			
	AO-400 (HD)	AOV-400 (HD)	V-400 (HD)	
	AODT-400 (HD)			
N-470078	1/2-20 x 3-7/8 O.A.			
	AO-800	CASB-800	SB-800	
		CAV-800	V-800	
W-470078	1/2-20 x 3-7/8 O.A.			
	AODT-800	DTSB-800	DTV-800	
470093	5/8-18 x 4-15/32 O.A.			
	AO-800 (HD)	AODT-800 (HD)	AOV-800 (HD)	V-800 (HD)
470095	#8-32 x 1-3/32 O.A.			
	H-100	SH-100	HR-100	HL-100
470108	3/4-16 x 6-15/32 O.A.			
	AO-2000 (HD)	AODT-2000 (HD)		

BOLT RETAINER ASSEMBLIES
AND
BOLT BUSHING ASSEMBLIES
(For clamping *ANGULAR* to mounting plane)

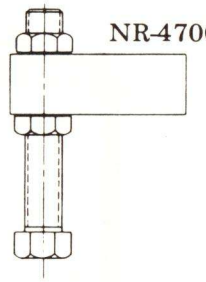
Assembly consists of: Bolt Retainer or Bolt Bushing, Spindle and Nuts
Length of spindle is **O**ver**A**ll Dimension.



Part Number R-470005 — 5/16-24 x 2-3/4 O.A.

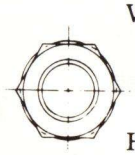
Size and Model Numbers

H-200	H-400	S-100
SH-200	H-400 x 20°	T-100
	SH-400	V-100



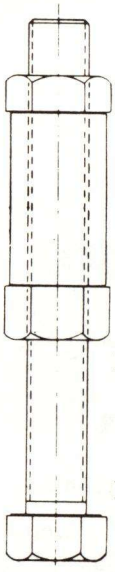
NR-470009 — 3/8-24 x 2-19/32 O.A.

AO-200-1	AODT-200-1	DTS-200	H-600	T-200
AO-201	AODT-201	DTV-200	SH-600	T-400
AO-400-1	AODT-400-1	DTS-400		V-200
AO-401	AODT-401	DTV-400	S-200	V-400
			S-400	VA-400
			J-400	



WR-470009 — 3/8-24 x 2-19/32 O.A.

AO-200-1 (HD)	AODT-201(HD)	AOV-201(HD)
AO-201(HD)	AOV-201 (HD)	V-200 (HD)



HB-470020 — 5/8-18 x 5-15/32 O.A.

AODT-1200	DTSB-1200
	DTV-1200

HB, LB, & MB Bushings

LB-470020 — 5/8-18 x 5-15/32 O.A.

AO-1200	CASB-1200	SB-1200
	CAV-1200	V-1200

MB-470020 — 5/8-18 x 5-15/32 O.A.

CASB-2000	SB-2000
CAV-2000	V-2000

R-470020 — 5/8-18 x 5-15/32 O.A.

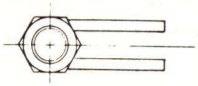
AO-800 (HD)	AODT-800 (HD)	AOV-800 (HD)
		V-800 (HD)

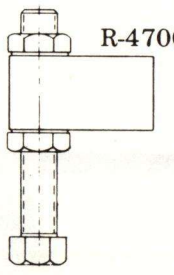
B-470078 — 1/2-20 x 3-7/8 O.A.

AODT-800	DTSB-800	DTV-800

R-470078 — 1/2-20 x 3-7/8 O.A.

AO-800	AO-401 (HD)	CASB-800	V-800
AO-400-1 (HD)	AODT-401 (HD)	CAV-800	
	AOV-400 (HD)	SB-800	
	V-400 (HD)		





R-470078-F — 1/2-20 x 3-7/8 O.A.
HLC-600

LAPEER MANUFACTURING COMPANY
420 FISHER BLDG.
Detroit, Mich. 48202
Telephone: 313-873-4800

LAPEER MFG. CO.
KNU-VISE PRODUCTS
LAPEER, MICHIGAN

Not stock items **CLAMPS** Not stock items

FOR SPECIAL REQUIREMENTS

STANDARD CLAMPS *ALTERED* TO YOUR SPECIFICATIONS

Examples Below 1/8 Actual Size

Portable



P-400-L.M.



P-2400-N.C.



SP-2600



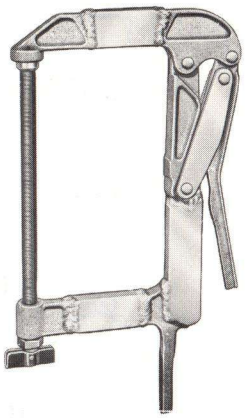
P-1200-F.M.



VW-10-C.H.



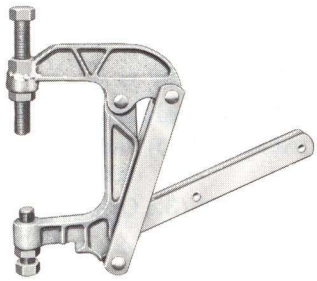
P-1200-G.C.



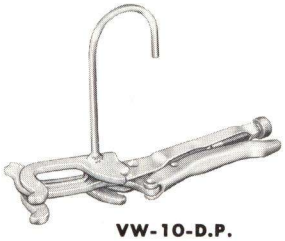
C-2410 x 6



P-1203 x 6

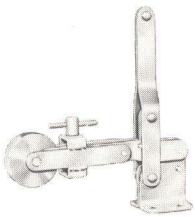


TJ-2000-E.M.

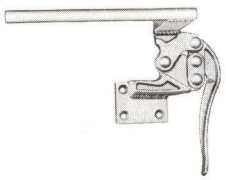


VW-10-D.P.

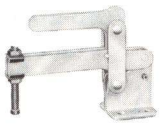
Fixed Mounted



V-400-L.M.



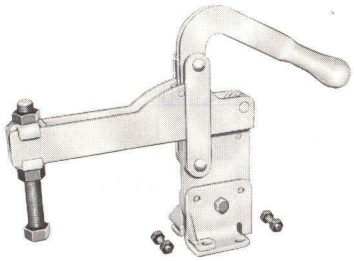
C-1800-R.C.A.



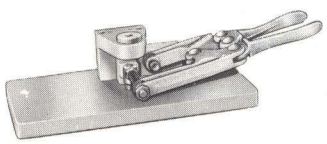
HF-400



H-600 x 90°



S-1200-R.S.



P-1200/1800

Note: one long and one short jaw

Illustrated on this page are many *standard clamps specially altered* for unusual clamping applications.

THEY ARE NOT CARRIED IN STOCK.

If you have a special clamping problem, let our engineers solve it. We invite your inquiry, whether it is for one or quantity lots.

REFER SUCH INQUIRIES TO THE DETROIT OFFICE ADDRESS:

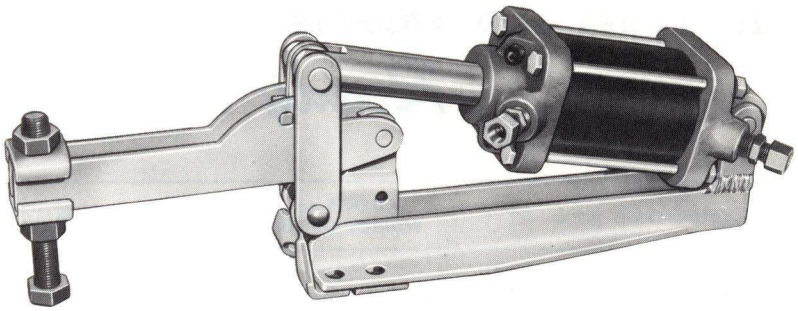
420 FISHER BLDG., DETROIT, MICH. 48202

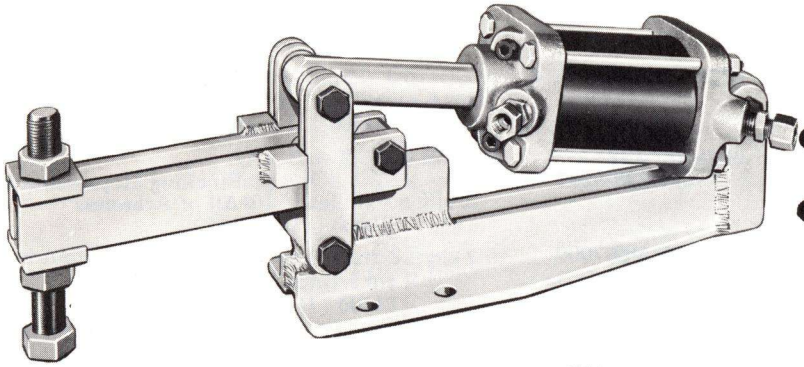
Not stock items

SPECIAL AIR-OPERATED CLAMPS

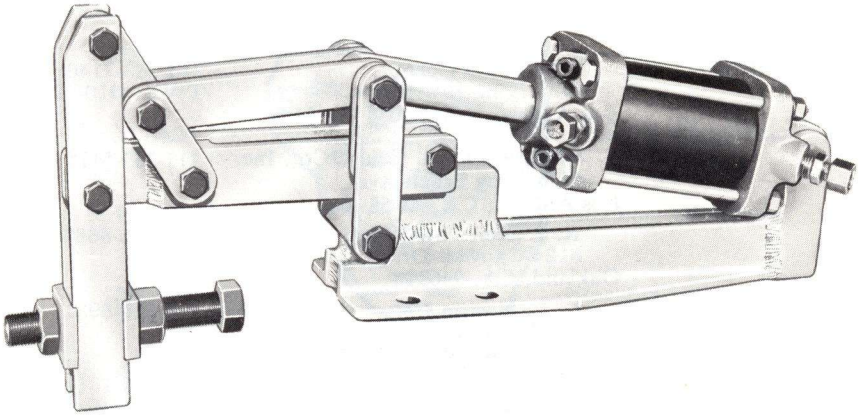
Not stock items

- **MODEL AO-800**



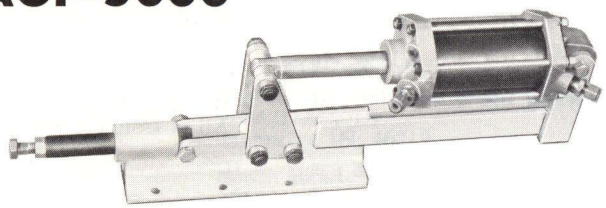


- **AO-800(HD)**
- **AO-2000(HD)**

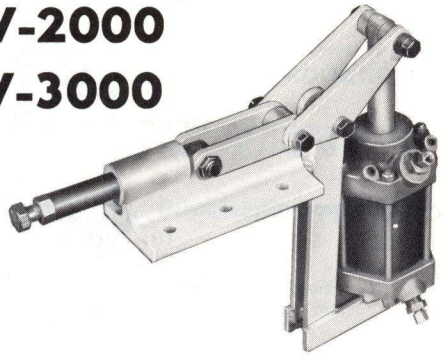


- **AODT-800(HD)**
- **AODT-2000(HD)**

- **AOP-2000**
- **AOP-3000**



- **AOPV-2000**
- **AOPV-3000**





313-873-4800

REFER SUCH INQUIRIES TO THE DETROIT OFFICE ADDRESS:

420 FISHER BLDG., DETROIT, MICH. 48202

LOOKING FOR A SOURCE OF SUPPLY IN YOUR STATE?

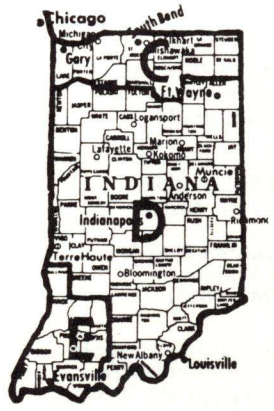
SEE NAMES AND ADDRESSES BELOW OF OUR AGENTS NEAREST YOU

Ready to be of Service!

STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
ALABAMA	Ford Tool & Carbide Co. 3404 10th Avenue N. Birmingham, AL. 35234	205-252-9991	Stocking Distributor
ARKANSAS	Moehlenpah Engr. Inc. 309-B Lanehart Little Rock, AR. 72204	501-568-3363, 4	Stocking Representative
	Jerry Stone Assoc. 105 E. Main Richardson, TX. 75080	214-238-8297	Stocking Representative All of Arkansas
	Lyons Mach'y. Co. 2900 W. 68th St. Little Rock, AR. 72209	501-562-7000	Stocking Distributor
	Lyons Mach'y. Co. 712 Division St. Fort Smith, AR. 72901	501-782-8831	Stocking Distributor
CALIFORNIA	Peck-Lewis Corp. 4436 Long Beach Ave. Los Angeles, CA. 90058	213-233-7146 TWX: 910-321-3708	Stocking Representative All of California
	Art Lewis Prod. Equip. Co., Inc. 4436 Long Beach Ave. Los Angeles, CA. 90058	213-233-5115	Area Agent
	R. J. Storm and Son 8124 Capwell Dr. Oakland, CA. 94621	415-562-8686	Stocking Distributor
	C. L. Norton Co. 213 Lawrence Ave. S. San Francisco CA. 94080	415-589-8931	Stocking Distributor
	McMaster-Carr Supply Co. 9601 John St. Santa Fe Springs, CA. 90670	213-945-1311 TWX: 910-586-1882	Stocking Distributor
	Smiley-Prock Ind'l Supply 4191 - 30th St. San Diego, CA. 92104	714-283-7344	Stocking Representative
COLORADO	Duboc, Lane and Monckton, Inc. 637 Osage St. Denver, CO. 80204	303-623-1261	Stocking Distributor
CONNECTICUT	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N.Y. 10017	212-687-0077	Stocking Representative All of Connecticut
	Ideal Mach'y & Supply Co. 109 E. Main St. Plainville, Ct. 06062	203-747-1651	Stocking Distributor

STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
DELAWARE	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Area Agent
DISTRICT OF COLUMBIA	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Area Agent
FLORIDA	Don Wheeler & Assoc. 1121 Spring St., N.W. Atlanta, GA. 30309	404-874-1927	Area Agent
GEORGIA	Don Wheeler & Assoc. 1121 Spring St., N. W. Atlanta, GA. 30309	404-874-1927	Area Agent
	Ziegler Tools, Inc. 711 Marietta St. Atlanta, GA. 30318	404-688-0345 WATTS: 800-282-4223	Stocking Distributor
ILLINOIS	Larry P. Wood 14601 S. La Grange Rd. Orland Park, IL. 60462	312-349-1878	Area Agent See A of Map
	Daniels Supply Co. 2929 N. California Ave. Chicago, IL. 60618	312-478-2323	Stocking Distributor
	AAA Saw & Tool Serv. & Supply Co. 1401 Washington Blvd. Chicago, IL. 60607	312-738-4100	Stocking Distributor
	McMaster-Carr Supply Co. 600 County Line Rd. Elmhurst, IL. 60657	312-833-0300 TWX: 910-221-5024	Stocking Distributor
	Bosler Supply Co. 1935 S. Wabash Ave. Chicago, IL. 60616	312-842-6800	Stocking Distributor
	Industrial Supply 203 Poplar Pl. N. Aurora, IL. 60542	312-859-2300	Stocking Distributor
	Miller Ind'l Supply 1695 N. 21st St. Decatur, IL. 62525	217-428-7787	Stocking Distributor
	Sterling Products Co., Inc. 1524 Third Ave. Moline, IL. 61265	309-764-5656	Stocking Distributor
	Couch & Heyle 2500 N. Main St. E. Peoria, IL. 61611	309-694-2011 TWX: 910-652-1786	Stocking Distributor
	Factory Supplies Co. 2111 23rd Ave. Rockford, IL. 61110	815-226-7000	Stocking Distributor
	Moehlenpah Engr. Inc. 2200 W. Altorfer Dr. Peoria, IL. 61614	309 - 691-2052	Stocking Representative See B of Map
INDIANA	Moehlenpah Engr. Inc. 1251 Diamond Ave. Evansville, IN. 47711	812-423-6468	Stocking Distributor See E of Map
	Scott Industrial Equipment Co. 418 E. Berry St. Ft. Wayne, IN. 46802	219-742-1553	Stocking Representative See C & D of Map
	Scott Industrial Equipment Co. 2655 Tobey Dr. Indianapolis, IN. 46219	317-897-1222	Stocking Representative
	South Bend Supply Co. 1310 S. Prairie Ave. South Bend, IN. 46624	219-232-1421	Stocking Jobber South Bend Area
	Brown & Hubert 306 N. 7th Ave. Evansville, IN 47707	812-425-9049	Stocking Distributor



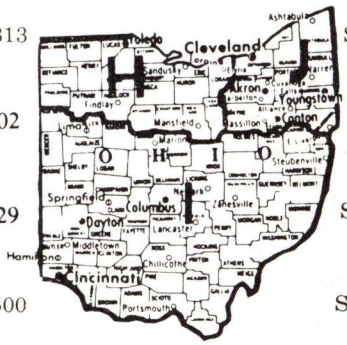


STATE	AGENT and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
IOWA	Moehlenpah Engr. Inc. 940 W. Third St. Davenport, IA. 52802	319 - 322-5341 Telex: 46-8460	Stocking Representative Davenport Area
	McNeal Tool & Supply 1225 1st Ave., S.E. Cedar Rapids, IA. 52402	319-366-2701	Stocking Distributor
	Industrial Supplies Inc. 1544 Second Ave. Des Moines, IA. 50302	515-288-7446	Stocking Distributor
	G. M. H. Fluid Power & Mach'y Inc. 1433 Walnut St. Des Mones, IA. 50309	515-288-4443	Stocking Representative All of Iowa
KANSAS	L-D Supply Inc. 3503 W. Harry Wichita, KS. 67277	316-942-8374	Stocking Distributor
	Bossert Co. 1701 Main St. Kansas City, MO. 64108	816-221-9030	Stocking Distributor
KENTUCKY	Scott Industrial Equip. Co. 332 E. Court Jeffersonville, IN. 47130	502-587-6141	Stocking Representative
LOUISIANA	Jerry Stone Assoc. 105 E. Main Richardson, TX. 75080	214-238-8297	Stocking Representative
MAINE	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N.Y. 10017	212-687-0077	Area Agent
MARYLAND	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Stocking Representative
MASSACHUSETTS	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent
	Brooks Precision Supply Inc. 10 Green Street Woburn, MA. 01801	617-935-9690	Stocking Distributor
MICHIGAN	Call our Plant at 3056 Davison Rd. Lapeer MI. 48446	313-664-2964	Lapeer, Michigan
	Call our Detroit Sales Office 420 Fisher Bldg. Detroit, MI. 48202	313-873-4800	Detroit Area
	Gransden Hall & Co. 920 Walnut St. Flint, MI. 48501	313-234-6672	Stocking Distributor
	Grand Rapids Supply Co. 405 Grandville S.W. Grand Rapids MI, 49502	616-458-3601	Stocking Distributor

STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
MICHIGAN (*Continued*)	Central Michigan Tool Supply, Inc. 1336 Sunset Ave. Lansing, MI. 48905	517-372-9130	Stocking Distributor
	Muskegon Hardware & Supply Co. 605 W. Western Ave. Muskegon, MI. 49443	616-722-7631	Stocking Jobber
	P. T. Standard Parts Co. 120 E. Columbia Pontiac, MI. 48055	313-334-9521 Detroit: 313-963-2412	Stocking Distributor
	Gransden Hall & Co. 3415 Janes Rd. Saginaw, MI. 48605	517-754-2431	Stocking Distributor
MINNESOTA	Midwest Mach. Tool Supply Co. 2721 E. Franklin Ave. Minneapolis, MN. 55406	612-336-1606	Stocking Representative
	The Satterlee Co. 2200 E. Franklin Ave. Minneapolis, MN. 55404	612 - 370-2511	Stocking Distributor
	The Satterlee Co. 2202 W. 1st St. Duluth, MN. 55806	218-727-1122	Stocking Distributor
MISSISSIPPI	Industrial Specialty Co., Old Tuscaloosa Road Columbus, MS. 39701	601-328-0971	Stocking Distributor
	Industrial Specialty Co. 313 Hwy. - 11 So. Meridian, MS 33901	601-483-2246	
	Industrial Specialty Co. 120 Richardson Dr. Jackson, MS. 39203	601-922-2212	
MISSOURI	Bossert Co. 1701 Main St. Kansas City, MO. 64108	816-221-9030	Stocking Distributor
	Moehlenpah Eng'g Inc. 1210 S. Vandeventer St. Louis, MO. 63110	314-658-7100	Stocking Representative Eastern Missouri
MONTANA	Contact our California or Washington Sources of Supply		Montana
NEBRASKA	Industrial Tool & Supply Co. 2845 Dan Ave. Lincoln, NE. 68501	402-434-9168	Stocking Distributor
	G.M.H. Fluid Power & Mach'y Inc. 701 S. 75th Omaha, NE. 68114	402-391-1155	Stocking Representative
NEW HAMPSHIRE	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent
NEW JERSEY	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent
	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Stocking Representative
	Quad Machinery & Supply Co. 314 U.S. Hwy. Rt. 46 Little Ferry, N.J. 07643	201-440-2670	Stocking Distributor

STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
NEW MEXICO	Contact our Texas Source of Supply		N. Mexico
NEW YORK	R. C. Neal Co., Inc. 76 Pearl St. Buffalo, N. Y. 14202	716-856-1110	Stocking Representative See G of Map
	R. C. Neal Co., Inc. 1148 Sullivan St. Elmira , N.Y. 14901	607-734-5168	Stocking Representative See G of Map
	Cavac Tool & Supply Co. Inc. 143 S. Main St. Freeport, L. I., N. Y. 11520	516-379-0300	Stocking Distributor
	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent See F of Map
	R. C. Neal Co., Inc. 99 Ridgeland Rd. Rochester, N. Y. 14623	716-473-4380	Stocking Representative See G of Map
	R. C. Neal Co., Inc. 200 Boss Road Syracuse, N. Y. 13211	315-437-2555	Stocking Representative See G of Map
	Turcotte Tool & Die Supply 586 E. 2nd St. Jamestown, N.Y. 14701	716-664-2900	Stocking Distributor
N. CAROLINA	Apex Mach. Tool Supply Co. 3615 Wilkinson Blvd. Charlotte, N. C. 28208	704-399-0454	Stocking Representative
N. DAKOTA	Acme Welding Supply Co. 1206 N.P. Av. Fargo, N. D. 58102 Also . . . 820 Front/Bismarck, N.D. 58501	701-237-5233 (701) 223-8255	Stocking Representative
OHIO	Akron Welding & Spring Co. 925 S. Main St. Akron, OH. 44311	216-762-0313	Stocking Distributor
	Advanced Ind'l Products 9110 Ind'l Parkway Plains City, OH. 43064	614-873-4602	Stocking Representative See I of Map
	Right Fluid Powers 5244 Enterprise Blvd. Toledo, OH. 43611	419-729-9929	Stocking Distributor
	Bingham Inc. 1278 W. 9th St. Cleveland, OH. 44113	216-696-2500	Stocking Distributor
	George Whalley Co. 4208 Prospect Ave. Cleveland, OH. 44103	216-881-7676	Stocking Distributor
	Cleveland Duplex Mach'y. Co. 15309 Madison Ave. Lakewood, OH. 44107	216-226-4740	Stocking Distributor
OKLAHOMA	Jerry Stone Assoc. 105 E. Main Richardson, TX. 75080	214-238-8297	Sales Representative
	K-P Supply Co. 5 N. Pennsylvania Ave. Oklahoma City, OK. 73107	405-235-2621	Stocking Distributor





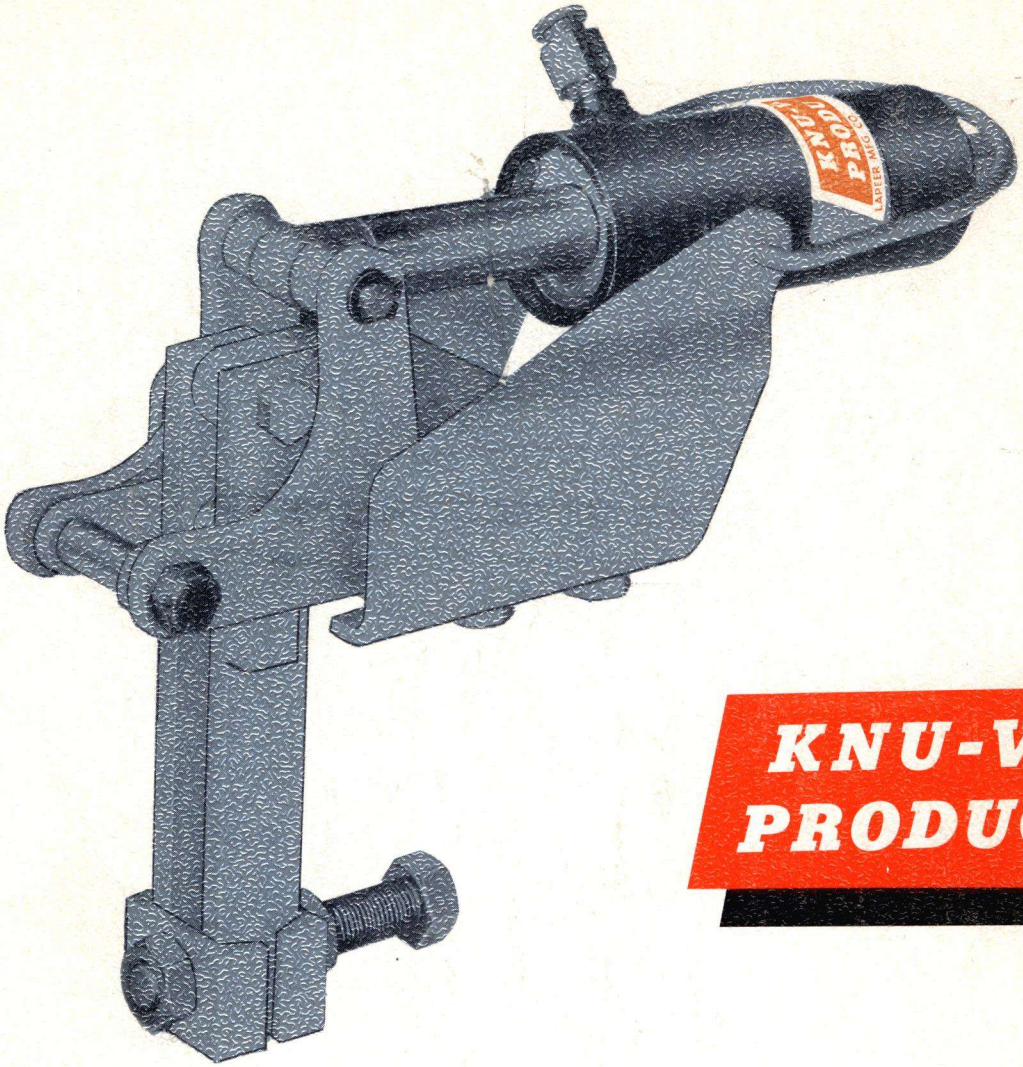
STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
OREGON	Contact our California Source of Supply		Oregon
PENNSYLVANIA	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Stocking Representative See L of Map
	Lappe Supply Co. 85 S. 24th St. South Side Pittsburgh, PA. 15203	412-481-0600	Stocking Distributor
RHODE ISLAND	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent
S. CAROLINA	Apex Mach. Tool Supply Co. 3615 Wilkinson Blvd. Charlotte, N. C. 28208	704-399-0454	Stocking Representative
S. DAKOTA	Contact our Minnesota Source of Supply		S. Dakota
TENNESSEE	Moehlenpah Eng'g Inc., 3140 Fleetbrook Dr. Memphis, TN. 36116	901-332-0761	Stocking Representative
	The Tool Crib, Inc. 1044 McCallie Ave. Chattanooga, TN. 37403	615-266-5686	Stocking Distributor Chattanooga Area
	Tennessee Belting & Supply Co. 2538 Sutherland Ave. Knoxville, TN. 37901	615-528-9371	Stocking Jobber
	Tool Crib, Inc. 2031 Sutherland Knoxville, TN. 37901	615-525-6195	Stocking Jobber Knoxville Area
	Tennessee Die Supply Co., Inc. 725 Massman Dr. Nashville, TN. 37210	615-883-9510	Stocking Distributor Nashville Area
TEXAS	Jerry Stone Assoc. 105 E. Main Richardson, TX. 75080	214-238-8297	Stocking Representative All of Texas
	Central Industrial Supply Co. 2325 W. Jefferson Grand Prairie, TX. 75050	214-641-1894	Stocking Distributor
	H. R. Wilkins Co. 1812 Wayside Houston, TX. 77011	713-928-3235	Stocking Distributor
	East Texas Welding & Industrial Supply 1232 W. Marshall Ave. Longview, TX 75601	214-758-7327	Stocking Distributor
	Swing Mach'y. & Equip. Co., Inc. 106 W. Rhapsody San Antonio, TX. 78216	512-342-9588	Stocking Distributor

STATE	AGENTS and/or SOURCE OF SUPPLY	TELEPHONE	SERVICE AREA
UTAH	Paxton Production Tools, Inc. 559 S. 3rd West St. Salt Lake, City, UT. 84101	801-364-8417	Stocking Distributor
VERMONT	V. A. Chern 101 Park Ave. Suite 1436 N. New York, N. Y. 10017	212-687-0077	Area Agent
VIRGINIA	Jackson-Walter Co. 340 Crooked Lane King of Prussia, PA. 19406	215-272-7156	Stocking Representative
WASHINGTON	Pacific Distributing Inc. 7118 Beacon Ave. So. Seattle, WA. 98108	206-722-2610	Stocking Distributor
W. VIRGINIA	Contact our Plant Direct	313-664-2964	
WISCONSIN	Stoffregen Angel Mach. Corp. 1810 S. Calhoun Rd. New Berlin, WI. 53151	414-784-2069	Stocking Distributor See M of Map
	Midwest Machine Tool Supply Co. 2721 E. Franklin Ave. Minneapolis, MN. 55406 612-336-1606		Stocking Representative See N of Map
	Gordon Engr., Inc. 1882 E. Main St. Madison, WI. 53704	608-244-6292	Stocking Distributor
WYOMING	Paxton Production Tools, Inc. 559 S. 3rd West St. Salt Lake City, UT. 84101	801-364-8417	Stocking Distributor

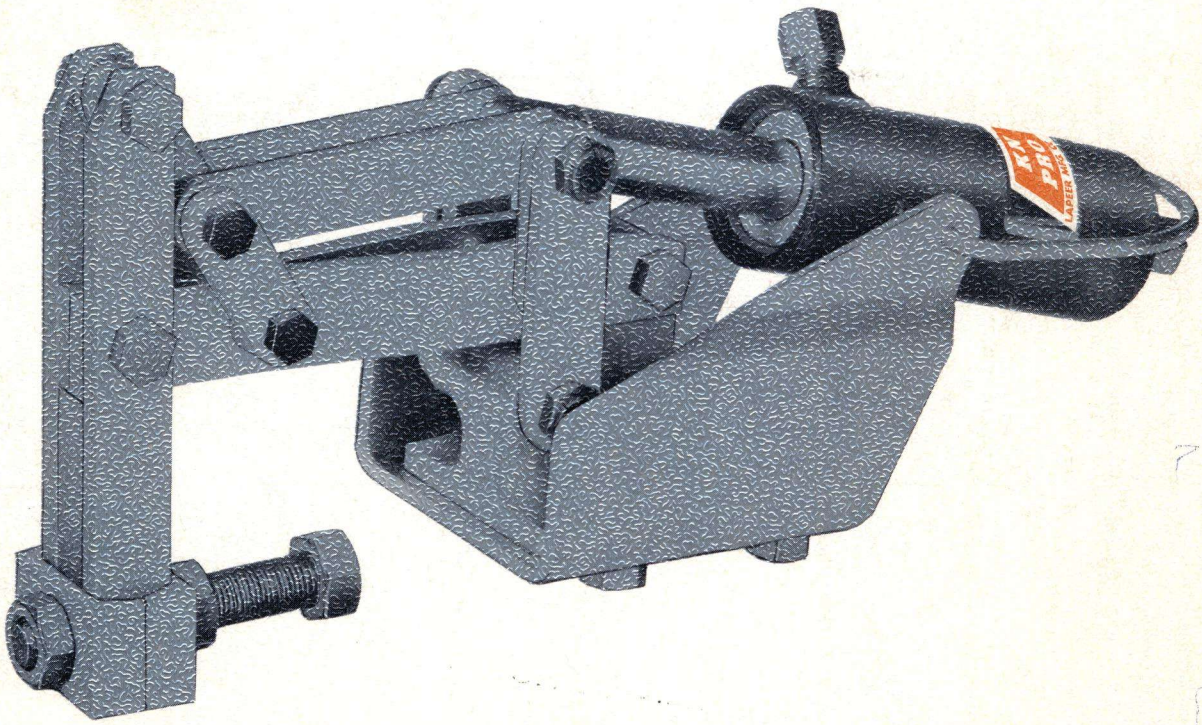


FOREIGN

Canada	Producto Diemakers Supplies Ltd. 620 Supertest Rd./Units 19, 20, 21 Downsview, Ontario M3J 2M8	416-661-0555 Telex: 062-2519	**Stocking Representative**
	Producto Diemakers Supplies Ltd. 1081 Begin St. St. Laurent, Quebec H4R 1V8	514-332-5082 Telex: 058-27850	**Stocking Representative**
	Producto Diemakers Supplies Ltd. 7382 Winston St. Burnaby, British Columbia V5A 2G9	604-294-5664 Telex: 043-54735	**Stocking Representative**
	Higginson Equipment Sales Ltd. 1131 Pettit Rd. Burlington, Ontario L7R 3Z4	416-634-1888 Telex: 021-171	Stocking Representative
Mexico	Ingenieria y Mantenimiento Industrial, S. A. Calzada Vallejo #58 Mexico, 3 D.F.	583-91-11 597-18-33	Stocking Representative
Europe	Gytaco G.m.b.H. Bachstrasse 34 503 Suhr Switzerland	064 31 40 34 Telex: 68-258	Stocking Representative



KNU-VISE PRODUCTS



I-79
NHJ-20